

METEOROLOGICAL TABLES.

[Prepared by the Records Division.]

Table I gives, for 140 Weather Bureau stations making two observations daily and for 10 others making only the 8 p. m. observation, the data ordinarily needed for climatological studies, viz., the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and the departures from normals in the case of pressure, temperature, and precipitation.

The stations are arranged in geographical or climatological divisions, for each of which the mean temperature and average precipitation for the month are also given, together with their departures from normal values.

Generally the headings of the several columns are sufficiently explicit as to the data underneath.

The mean pressure is based on the 8 a. m. and 8 p. m. simultaneous observations. Mean values thus computed differ from the mean of the 24 hourly readings by amounts varying from zero to 0.02 of an inch; the departures east of the ninetieth meridian are generally above the mean of 24 hourly readings and those west of that meridian are generally below. A comparison for each individual station can readily be made in connection with the data given in Table VI.

The pressures have been reduced to sea level by the empirical method published by Prof. H. A. Hazen in Signal Service Professional Paper No. VI, which, however, has been further modified for a few special stations.

The mean temperature of the dew point and the mean relative humidity are based on daily observations of the whirled psychrometer at 8 a. m. and 8 p. m.

The maximum wind velocities given in the table are the velocities as read from the sheets of the register for any 5-minute period in the 24 hours, midnight to midnight, seventy-fifth meridian time.

The number of clear and cloudy days and the average cloudiness are based upon numerous personal estimates by the observer during the daytime and do not relate to the nighttime.

When these personal estimates give from 0 to 3 cloudiness, on a scale of zero to ten (0—10), the day is classed as clear; 4 to 7, partly cloudy; and 8 to 10, cloudy.

Table II gives, for about 2,200 stations occupied by voluntary observers, the extreme maximum and minimum temperatures, the mean temperature deduced from the average of all the daily maxima, and minima, or other readings, as indicated by the numeral following the name of station; and the total monthly precipitation.

For the sake of uniformity the monthly mean temperature has been deduced from readings of self-registering maximum and minimum thermometers whenever practicable. Formerly the means obtained by the use of observations at 7 a. m., 2 and 9 p. m. were printed in this table, whenever given, in preference to those deduced from the daily extremes.

These stations are arranged alphabetically by States, and their reports are generally received through the co-operation of the respective State Weather Services. The voluntary stations in the Republic of Mexico and those in the West Indies are included in this list for convenience of tabulation.

Table III gives, for about 30 Canadian stations, the mean pressure, mean temperature, total precipitation, prevailing wind, and the respective departures from normal values. Reports from Newfoundland and the Bermudas are included in this table for convenience of tabulation.

The mean pressures and temperatures here given are based

upon observations made simultaneously for telegraphic purposes at 8 a. m. and 8 p. m., seventy-fifth meridian time; the pressures have been reduced to sea level by the Weather Bureau method and, therefore, differ slightly from those reduced by the method employed by the Canadian Meteorological Service.

Table IV gives for 36 stations the percentages of hourly sunshine as derived from the automatic records made by two essentially different types of instruments, designated, respectively, as the thermometric recorder and the photographic recorder. The kind of instrument used at each station is indicated in the table by the letter T or P in the column following the name of the station.

The thermometric recorder operates on the principle of a Leslie differential air thermometer, one of the bulbs being blackened. It is fully described in the "American Meteorological Journal," Vol. ix, pp. 345-349. The record is produced electrically whenever the intensity of the sunshine surpasses a certain minimum limit and is sufficient to cause a mercurial column to rise above the upper of two platinum wires. The intensity of sunshine above this limit is not recorded. The instrument is adjusted by trial and observation so that a record will just be made when the cloudiness is not sufficient to quite obscure the disc of the sun. Denser cloudiness than this, so that the exact form of the sun's disc can not be seen with the unaided eye, will cause an interruption of the record.

The photographic recorder operates on the principle of Jordan's recorder. The record sheets for this instrument are sensitized each month with the ordinary blue-print solution, and are generally used only for a period of fifteen days, a new sheet being then introduced, but the instrument can be used for a whole month's record without changing the sheets.

Neither of these instruments will record satisfactorily the duration of the sunshine for about one hour after sunrise and one hour before sunset and, on this account, it has been considered necessary to apply to the recorded hours of sunshine what has been designated a "twilight correction." The amount of this correction is found from a table of the time of sunrise and sunset, noting, in connection therewith, the time of beginning and ending of sunshine on the automatic record. This correction is applied when we know, by personal observation, the comparative clearness of the sky at the time of sunrise or sunset, as the case may be.

Although the action of the thermometric recorder is based on the heating effect of the sun's rays, while that of the photographic recorder is based on the actinic effect, it is found there is not a very great difference between the two instruments. In general, however, the photographic recorder does not give such good results at stations where rain is more or less frequent and with comparatively high relative humidities, since under these conditions the sensitized paper deteriorates.

Although the thermometric recorders are regulated by standard eastern time, and the photometric recorders by a sun dial or local apparent time, yet the readings from the record sheets are adjusted to local mean time. The last column gives the percentage of sunshine deduced by taking the complement of the local observer's estimate of cloudiness, which latter is published in Table I.

Table V gives for 79 stations the mean hourly temperatures deduced from thermographs of the well-known pattern manufactured by Richard Bros., Paris, described and figured

in the report of the Chief of the Weather Bureau, 1891-'92, p. 29. These instruments are placed in the standard shelter with other thermometers, and are checked twice daily, for time errors and for agreement with the standard whirled thermometer.

In transcribing the hourly values, the readings of the dry-bulb thermometer of the whirled psychrometer at 8 a. m. and 8 p. m. are adopted as the standard of reference, and these standard readings are given in the appropriate columns of Table V. Corrections for intermediate hours, interpolated from the known differences at 8 a. m. and 8 p. m., are applied to the curve throughout the twenty-four hours, thus making it conform as closely as practicable to the indications of the standard mercurial thermometer. The averages given in this table are, therefore, those of the standard dry thermometer at 8 a. m. and 8 p. m., and the corrected thermograph reading for intermediate hours.

In general the magnitude of the corrections applied is about 1° Fahrenheit, although a number of instruments accord with the standard dry thermometer within less than a degree.

As has been noted elsewhere, the greatest differences are those between the daily extremes registered by thermographs and by standard self-registering maximum and minimum thermometers, respectively.

Table VI gives for 68 stations the mean hourly pressures (seventy-fifth meridian time) as automatically registered by barographs of the pattern manufactured by Richard Bros., Paris, except for Washington, D. C., where Foreman's barograph is in use. Both instruments are described in the Report of the Chief of the Weather Bureau for 1891-'92, pp. 26 and 30.

The readings of the mercurial barometer at 8 a. m. and 8 p. m., seventy-fifth meridian time, corrected for temperature and instrumental error, are used as a means of checking and correcting the barograph curve, in the same manner as described in the table of temperature means, and are those given in this table.

The corrections applied to the individual hourly barograph readings vary in magnitude. The average is about 0.02 of an inch, while in extreme cases it may be 0.06 or 0.08 of an inch, depending somewhat on the individual skill of the observer in keeping the instrument in adjustment.

The means have not been reduced to sea level, neither has a correction to reduce to standard gravity been applied.

Although the mean pressures are given in this table to the nearest thousandth of an inch, yet it is probable that these figures still need appreciable systematic corrections, therefore, as in the case of so many other similar European series, caution should be exercised in using them for the investigation of diurnal periodicities of pressure. The adopted process of reduction to the standard mercurial barometer prevents the accumulation of any progressive error, whether due to the time scale or to the vacuum box, but does not inform us of any periodic errors that may have occurred within the 12-hour periods. On this latter point we have only the little knowledge that is given to us by a general investigation into the effect of temperature on these aneroids. In this respect Prof. Marvin's experiments have shown that, although the manufacturer has introduced a compensation for temperature (presumably by introducing some air into the vacuum box), yet this result has not always been perfectly satisfactory. Several aneroids have been found to show higher pressures when the instrumental temperature rises, while others do the reverse. In a number of cases a rise of 10° F., in the instrumental temperature produces a fall of 0.010 or 0.015 of an inch in the recorded pressure.

In general, it is safe to assume that any one of the Richard

barographs at Weather Bureau stations is liable to a temperature correction of this amount, although the average of several instruments would undoubtedly be much smaller. Since the highest temperature, and, therefore, the largest plus or minus correction for temperature, generally occurs some time after the 8 a. m. reading, and *vice versa*, the lowest temperature with the largest minus or plus correction occurs before the 8 a. m. reading; therefore, there is introduced into every daily barograph record an error that will be either positive between 8 p. m. and 8 a. m., and negative between 8 a. m. and 8 p. m., or *vice versa*. The average amount of the maximum value of this error for a month, varying as it does with the temperature of the room in which the aneroid is kept, may easily amount in the winter season to 0.02 of an inch, but when station barometers are located in large buildings of uniform temperature the limit will diminish. It is evident, therefore, that these hourly means can not be used for determining by the harmonic analysis the shorter and smaller periodicities, although they sometimes give the semi-amplitude of the principal simple daily component to within 0.01 of an inch, or less. To this extent, therefore, these may be cautiously used in the study of both the geographical and chronological distribution of this first component, a study whose importance undoubtedly warrants the preparation and publication of this table from month to month. Some of the results of such studies will be published in subsequent numbers of this REVIEW.

Table VII gives for 142 stations the arithmetical means of the hourly movements of the wind ending with the respective hours, as registered automatically by the Robinson anemometer, in conjunction with an electrical recording mechanism, described and illustrated in the Report of the Chief of the Weather Bureau, 1891-'92, p. 19. No corrections have been applied to reduce the registered velocities to true velocities.

In studying the diurnal variations of wind movement, the following facts should be kept in mind. In graduating the dials of the various sizes of Robinson anemometers, it has been assumed by the makers that the centers of the cups move only one-third as fast as the wind, although numerous experiments have demonstrated that cups and arms of various proportions require different formulæ and tables of reduction even in perfectly steady motion. Prof. Marvin has further shown that for ordinary gusty winds, when the anemometer cups rapidly vary their rate of rotation, the moment of inertia of the revolving parts is a most important factor. The instruments having the least inertia record most truly, and those having large inertia exceed these in proportion as the gusts are stronger, consequently, the anemometer records are liable to be too large in the gusty winds of the daytime as compared with the more steady winds of nighttime. No correction for this inertia error has been determined, nor can be, unless we have simultaneous records with two anemometers having different moments of inertia; therefore, the apparent diurnal variations of wind velocity include a slight inertia error which is probably periodic in character between the winds of daytime and nighttime.

While we must regard the gustiness of the ordinary wind, that is, its sudden and momentary fluctuations of velocity, as highly variable, yet in practical anemometry we can not do more than make an average allowance for its effects upon an anemometer.

For the ordinary gusty winds of the free atmosphere Prof. Marvin adopts the following equation expressing the relation between the motion of the cups and the velocity of the wind at any moment:

$$\text{Log. } V = 0.509 + 0.9012 \text{ log. } v;$$

where V is velocity of wind in miles per hour and v is the

linear velocity (also in miles per hour) of the cup centers. This equation applies strictly to anemometers that have 4-inch hemispherical brass cups on arms 6.72 inches long, whose revolving parts weigh about 590 grains (22 ounces) and have a moment of inertia of about 50,000 C. G. S. units.

This equation has been deduced from comparative observations in the open air of anemometers whose behavior in steady velocities on the whirling machine had been previously studied. The recognition thus given the important effects of inertia enables us to say that by applying this formula, or the following equivalent table, we partly annul the influence of the inertia of brass anemometers used by the Weather Bureau.

The following table gives the corrected velocities corresponding to observed velocities up to 90 miles per hour. The tabular values corresponding to indicated velocities greater than 60 miles per hour are uncertain, as direct experiments were not made at the higher velocity:

Wind velocities, as indicated by Weather Bureau anemometer, converted to true velocities (in miles per hour).

Indicated velocity.	0	1	2	3	4	5	6	7	8	9
0.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10.....	9.6	10.4	11.3	12.1	12.9	13.8	14.6	15.4	16.2	17.0
20.....	17.8	18.6	19.4	20.2	21.0	21.8	22.6	23.4	24.2	24.9
30.....	25.7	26.5	27.3	28.0	28.8	29.6	30.3	31.1	31.8	32.6
40.....	33.3	34.1	34.8	35.6	36.3	37.1	37.8	38.5	39.3	40.0
50.....	40.8	41.5	42.2	43.0	43.7	44.4	45.1	45.9	46.6	47.3
60.....	48.0	48.7	49.4	50.2	50.9	51.6	52.3	53.0	53.8	54.5
70.....	55.2	55.9	56.6	57.3	58.0	58.7	59.4	60.1	60.8	61.5
80.....	62.2	62.9	63.6	64.3	65.0	65.8	66.4	67.1	67.8	68.5
90.....	69.2	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table VIII gives the resultant movements of the winds for 68 stations of self-registration as deduced from the continuous record for every hour of the month. The contents of the columns are as follows:

Column 1—the name and number of the station, the latter being the same as in tables I and IX for convenience of reference. Columns 2 and 3—the direction and duration of the prevailing wind, viz., that observed most frequently.

Columns 4 and 5—the total movement in all directions for the whole month and the average hourly movement corresponding thereto. Column 6—the resultant direction, assuming the wind to have always a uniform velocity. Column 7—the duration in hours of this resultant direction, considered as a wind that has blown with the average velocity. Column 8—the approximate average hourly velocity in this resultant direction, found by dividing the resultant movement of column 10 by the resultant duration of column 7. Column 9—the direction of the resultant movement, computed by using the miles actually traveled each hour, as read from the registers. Column 10—the amount of the resultant movement in miles. Column 11—the azimuth of the resultant movement minus the azimuth of the resultant direction; these azimuths are counted around the circle from zero at the south through 90° at the west, and if the azimuth of the resultant movement is greater than that of the resultant direction, the difference in column 11 is called positive; the azimuth of the movement is equal to that of the direction plus the positive, or minus the negative differences. Column 12—the ratio of the resultant movement in column 10 divided by the total movement in column 4; this ratio would be unity in the ideal case of wind blowing from one direction only, but would be zero in the ideal case of equal opposing winds.

Table IX gives for 140 stations, or all that make observations at 8 a. m. and 8 p. m. (seventy-fifth meridian time), the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind in miles. The total movement for the whole month, as read from the dial of the Robinson anemometer, is given for each station in Table I. By adding the four components for the stations comprised in each geographical division one may obtain the average resultant direction for that region. From these resultant directions one may pass to the resultant movement, at least approximately, by applying the average corrections indicated by column 11 of Table VIII.

MONTHLY WEATHER REVIEW.

FEBRUARY, 1894.

TABLE I.—Climatological data for Weather Bureau Stations, February, 1894.

Districts and stations.	Elevation above sea-level, feet.	Length of record, years.	Pressure, in inches.	Temperature of the air, in degrees Fahrenheit.								Humidity and precipitation.				Wind.				Mean temperature data since opening of station.															
				Mean pressure, m. and p. in. + 2.		Departure from normal.		Mean maximum.		Mean minimum.		Mean temperature of the dew point.		Mean relative humidity, per cent.		Precipitation, in inches.		Total movement, miles.		Cloudy days.		Average cloudiness, tenths.		Highest for month.		Lowest for month.									
				Mean	max. and min. + 2.	Mean	reduced.	Date.	Maximum.	Date.	Minimum.	Date.	Maximum.	Date.	Days more.	Miles per hour.	Direction.	Clear days.	Average cloudiness, tenths.	Highest for month.	Lowest for month.	Year.	Year.												
New England.																																			
Eastport	76	21	29.98	30.07	+ .11	19.0	- 3.5	43	18	26	- 14	24	12	32	8	63	3.42	- 0.4	10	9,497	nw.	50	se.	15	8	11	19	5.8	27.5	1877	16.7	1875			
Portland	103	23	29.98	30.09	+ .08	20.2	- 3.5	48	18	29	- 15	25	12	34	13	73	9,574	nw.	32	ne.	13	7	11	19	5.8	31.8	1877	19.2	1875						
Northfield	872	7	29.14	30.16	+ .10	12.6	- 4.5	44	18	24	- 31	25	1	46	4	71	1,54	- 1.0	6	6,631	s.	40	s.	18	10	9	10	5.5	22.2	1890	11.6	1889			
Boston	125	24	29.99	30.13	+ .08	26.6	- 1.2	51	18	34	- 7	24	19	34	17	68	3,15	- 0.4	11	8,771	w.	49	ne.	12	7	11	10	5.9	93.3	1890	20.5	1885			
Nantucket	14	8	30.11	30.12	+ .02	29.6	- 1.6	47	15	34	- 2	24	25	27	24	79	3,11	- 0.4	11	9,538	se.	7	10	11	6.0	35.0	1890	27.9	1889						
Woods Holl.	16					28.6	- 2.5	47	18	34	- 1	24	24	27	.....	4,69	+ 1.2	15	11,626	nw.	58	nw.	23	10	4	14	6.2	35.7	1880	24.1	1875			
Vineyard Haven.	8					31.4	- 1.9	50	18	38	- 3	24	28	28	.....	4.06	+ 0.8	13	.....	.....	.....	.....	10	3	15	.....	38.4	1890	29.9	1889		
Block Island	27	14	30.11	30.14	+ .07	29.2	- 2.3	49	18	35	- 5	24	23	34	24	78	4,43	- 0.4	14	14,102	nw.	73	e.	13	8	11	9	5.9	37.2	1890	24.2	1885			
Narragansett Pier.	12					26.2	- 2.9	44	* 35	17	25	17	35	.....	4,68	- 0.6	14	.....	.....	.....	.....	15	11	11	11	35.5	1890	22.4	1885			
New Haven	107	22	30.02	30.14	+ .05	26.0	- 2.5	51	8	33	- 5	25	20	33	19	73	3,80	- 0.2	14	5,847	nw.	38	sw.	18	7	6	15	5.9	35.0	1877	19.7	1885			
New London	45	24	30.11	30.16	+ .08	26.6	- 3.0	47	18	33	- 2	25	20	33	19	73	4,32	+ 0.9	.....	.....	.....	.....	.....	13	8	11	9	5.2	30.8	1890	22.7	1885
Md. Atlantic States.																																			
Albany	85	21	30.08	30.18	+ .10	21.2	- 5.0	50	18	30	- 11	*	13	38	15	78	2,61	- 0.1	11	6,175	s.	35	se.	17	8	10	10	5.6	33.0	1884	14.7	1885			
New York, N. Y.	185	29	29.95	30.16	+ .04	29.6	- 2.6	53	8	36	1	25	23	33	22	75	5,09	+ 1.4	8	8,235	nw.	42	nw.	16	6	11	11	6.2	40.4	1890	23.1	1885			
Harrisburg	377	6	29.74	30.17	-	28.6	-	51	18	35	3	25	22	26	24	82	4,56	.....	13	5,631	e.	40	nw.	16	6	8	14	6.4	37.0	1890	25.2	1889		
Philadelphia	117	24	30.03	30.16	+ .03	31.9	- 2.6	56	8	38	4	25	25	26	23	73	3,07	- 0.2	12	8,279	ne.	40	ne.	26	5	11	12	6.3	34.1	1890	23.4	1885			
Atlantic City	53	21	30.09	30.14	+ .04	33.6	- 0.4	64	18	40	5	25	25	28	26	84	3,46	+ 0.1	12	9,624	nw.	44	ne.	13	4	16	6	6.7	41.2	1890	25.7	1885			
New Brunswick						28.3	-	52	18	36	5	25	20	37	3,86	15	4	13	11
Baltimore	179	24	29.95	30.15	+ .01	34.4	- 2.6	59	18	41	8	25	26	28	25	70	5,33	0.0	15	5,515	n.	42	nw.	16	9	11	8	5.5	43.4	1890	28.5	1885			
Washington, D. C.	112	24	30.03	30.10	+ .02	35.2	- 0.9	63	18	42	12	25	28	26	26	73	4,64	+ 1.3	15	5,331	nw.	38	nw.	1	11	7	10	5.4	43.4	1890	26.9	1885			
Cape Henry	20					43.0	- 0.2	72	9	51	22	25	35	28	.....	5.95	+ 2.4	14	.....	.....	.....	.....	7	14	14	14	5.2	2.8	1890	35.5	1885	
Lynchburg	685	23	29.49	30.17	+ .03	10.1	- 0.8	68	9	49	15	25	32	29	29	75	4,92	+ 1.4	13	3,688	sw.	35	nw.	26	5	13	10	6.1	47.2	1890	31.6	1885			
Norfolk	57	24	30.09	30.16	+ .02	42.8	- 0.9	74	10	50	21	25	35	29	36	81	5,53	+ 1.8	15	6,462	ne.	41	sw.	26	7	b	13	6.2	52.4	1890	37.2	1885			
S. Atlantic States.						49.9	- 0.6	74	10	67	33	20	50	32	50	80	4,47	11
Charlotte	773	16	29.30	30.15	-	44.9	- 1.0	69	12	53	16	25	36	28	33	68	4,54	+ 0.2	12	6,302	sw.	36	s.	12	6	10	12	6.1	52.8	1890	38.5	1885			
Hatteras	11	14	30.15	30.16	+ .03	48.4	- 0.7	66	12	54	30	16	43	37	44	83	4,97	+ 0.5	12	11,566	n.	45	nw.	16	3	13	12	6.8	54.6	1890	41.2	1885			
Kittyhawk	9	18	30.12	30.13	-	45.0	- 1.2	60	10	52	25	36	37	37	38	79	2,81	- 1.2	13	11,486	sw.	48	n.	1	7	4	17	6.7	53.2	1890	37.7	1885			
Raleigh	388	8	29.74	30.17	-	45.0	- 0.9	71	9	53	18	25	37	28	37	78	3,83	- 0.2	12	5,380	s.	30	nw.	4	5	19	19	7.4	52.7	1890	38.2	1889			
Southport	34	19	30.13	30.16	-	48.8	- 0.5	64	12	51	26	25	42	33	45	86	6,02	+ 0.3	12	7,618	sw.	40	nw.	15	6	15	15	6.4	58.0	1890	42.5	1885			
Wilmington	78	24	30.08	30.17	-	50.6	- 0.1	76	10	59	25	25	42	33	43	83	3,53	+ 0.2	10	7,382	sw.	40	nw.	15	6	15	15	6.4	58.4	1890	44.4	1885			
Charleston	52	24	30.14	30.19	+ .04	52.8	- 0.9	76	10	60	29	25	46	39	45	82	3,91	+ 0.4	12	6,749	ne.	34	ne.	24	4	16	8	6.2	60.0	1890	47.4	1889			
Columbia	7					50.8	- 0.7	75	10	60	21	25	41	39	41	84	5.33	+ 1.5	11	.....	.....	.....	.....	7	11	10	10	5.7	60.6	1890	44.0	1889
Augusta	209	23	29.98	30.21	+ .07	49.5	- 1.7	74	3	58	25	41	30	41	41	76	7.09	- 0.2	15	5,030	w.	30	w.	15	7	15	15	6.1	53.8	1890	42.7	1885			
Savannah	98	24	30.08	30.19	+ .02	54.2	- 1.6	76	10	62	29	16	46	30	46	81	3,65	+ 0.6	13	5,537	s.	30	ne.	24	7	10	11	6.2	61.1	1890	48.0	1889			
Jacksonville	43	23	30.14	30.19	+ .04	58.8	- 1.0	80	10	67	33	20	50	32	50	80	8.89	+ 0.4	12	5,792	sw.	33	sw.	12	0	5	17	7.0	0.65	0	1891	52.4	1889		
Florida Peninsula.						68.3	- 1.2	74	2	63	34	25	51	19	.....	8.89	.....	11	.....	.....	.....	.....	2	10	10	10	6.7	52.8	1890	39.5	1885	
Jupiter	28	7	30.16	30.19	-	68.5	- 1.3	85	13	76	39	16	61	27	61	82	8.21	- 2.8	3	7,086	s.	30	s.	3	9	18	1	4.2	71.6	1890	64.8	1889			
Key West	22	24	30.17	30.19	+ .07	72.2	- 0.4	82	24	77	55	16	68	17	63	77	70	0.2	17	1,655	n.	45	nw.	15	7	12	12	6.3	34.7	1883	56.0	1886			
Tampa	36					64.6	-	80	12	73	36	10	56	33	57	84	9.25	- 3.3	12	7,273	sw.	30	sw.	8	10	12	12								

TABLE I.—Climatological data for Weather Bureau Stations, February, 1894—Continued.

Districts and stations.	Elevation above sea-level, feet. Length of record, years.	Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.						Humidity and precipitation.			Wind.			Mean temperature data since opening of station.											
		Mean pressure, 8 a.m. and 8 p.m. + 2.	Mean reduced.	Departure from normal.	Mean max. and min. + 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum. (Greatest daily range.)	Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Total movement, or more.	Maximum velocity.	Partly cloudy days.	Average cloudiness, tenths.	Highest for month.	Lowest for month.	Year.				
		Mean.	Mean.	Departure from normal.	Mean.	Maximum.	Date.	Mean.	Minimum.	Date.	Mean.	Mean.	Cent.	Normal.	Days with 0.1 or more.	Miles per hour.	Prevailing direction.	Direction.	Clear days.	Cloudy days.	Year.						
<i>Up. Miss. Val.—Con.</i>																											
Davenport.....	613 23	29.46	30.17	+ .06	22.1	- 2.5	50	*	30	- 6	21	14	30	16	79	1.48	- 0.2	6	6,749	sw.	36	sw.	10	11	10	4.3-40.3 1882 10.1 1875	
Des Moines.....	809 16	29.19	30.19	+ .06	20.5	- 2.3	54	27	30	- 8	21	11	33	14	78	1.39	+ 0.1	5	5,655	sw.	32	sw.	16	16	9	3.9-36.5 1882 14.6 1885	
Dubuque.....	651 21	29.41	30.18	+ .06	20.0	- 2.3	49	7	29	- 1	21	11	32	12	75	1.22	- 0.4	4	4,033	nw.	25	nw.	10	14	6	4.4-35.7 1882 6.1 1885	
Keokuk.....	613 23	29.47	30.17	+ .06	25.8	- 2.3	58	7	34	- 2	21	18	38	18	75	1.46	- 0.4	9	6,012	nw.	37	nw.	10	14	6	4.1-39.5 1882 16.5 1885	
Cairo.....	359 23	29.76	30.17	+ .05	35.8	- 3.5	64	9	42	12	24	29	25	29	77	4.77	+ 0.6	10	8,177	n.	48	sw.	9	9	7	12 5.5-49.0 1882 31.9 1885	
Springfield, Ill.....	644 15	29.44	30.17	+ .04	26.2	- 5.0	55	27	34	3	10	15	32	19	70	2.58	- 1.2	8	7,510	nw.	35	sw.	9	11	4	13 42.2-1882 20.9 1885	
Hannibal.....	534 17	29.56	30.17	.....	27.0	.....	54	27	35	4	16	19	40	19	75	2.51	.....	8	7,099	sw.	42	sw.	9	13	5	10 5.1-..... 1882 26.0 1875
Saint Louis <i>Missouri Valley.</i>	571 24	29.53	30.17	+ .04	32.4	- 2.7	62	27	40	9	21	25	30	22	67	2.88	- 0.1	7	8,758	nw.	58	sw.	9	15	4	9 4.4-43.9 1882 26.0 1875	
Columbia.....	29.6	.....	60	27	40	9	15	20	45	.....	.....	.....	.....	.....	.....	1.35	- 0.1	7	5,575	nw.	32	sw.	9	9	11	8 4.8-..... 1882 3.6-1887
Kansas City.....	903 6	29.11	30.20	+ .06	27.2	- 4.9	59	27	34	1	15	20	33	20	79	2.42	+ 0.7	7	7,262	n.	36	sw.	17	9	9	10 5.7-36.8 1882 26.9 1893	
Topeka.....	1,356 9	28.67	30.17	+ .04	32.0	- 4.9	59	27	41	2	15	24	34	22	72	2.28	- 1.0	9	7,656	nw.	48	sw.	9	8	5	15 6.4-45.2 1882 32.0 1894	
Omaha.....	1,123 24	28.95	30.23	+ .06	21.6	- 2.5	51	7	31	2	15	18	35	35	72	1.34	- 0.4	4	4	.....	8	13	7	37.2-1882 26.8 1889		
Valentine.....	2,613 8	27.30	30.21	+ .06	17.8	- 5.1	56	28	30	1	15	21	6	42	8	71	0.53	0.6	6	6,928	nw.	22	se.	16	11	12	5.4-37.3 1877 13.4 1875
Sioux City.....	1,165 17	28.80	30.20	.....	16.8	.....	48	28	38	1	10	19	34	12	81	0.19	.....	4	7,640	n.	44	n.	9	15	9	4 3.7-..... 1882
Pierre.....	1,470 17	28.50	30.18	.....	16.8	.....	68	28	38	1	14	12	40	10	81	0.04	.....	1	5,768	n.	36	n.	9	16	11	1 3.0-..... 1882
Buron <i>Northern Slope.</i>	1,310 13	28.66	30.19	+ .02	10.6	- 2.5	44	28	22	2	18	12	1	41	5	85	0.21	- 0.2	2	9,418	n.	48	se.	24	17	6	5 3.6-24.7 1882 3.6 1887
Havre.....	2,477 14	27.32	30.10	- .06	15.2	- 0.3	49	7	26	19	19	5	40	8	75	0.14	- 0.5	6	8,002	sw.	38	sw.	27	9	14	5 4.7-30.3 1886 2.6 1887	
Miles City f.....	2,374 17	27.48	30.15	.....	10.7	- 5.5	48	28	24	2	15	2	24	6	85	0.07	- 0.4	2	1,558	s.	13	se.	20	16	7	5 3.3-30.8 1878 7.5 1887
Helena.....	4,118 15	25.77	30.23	+ .05	16.3	- 6.1	48	7	24	1	15	8	30	7	69	0.47	- 0.2	7	4,629	n.	36	w.	16	11	6	11 5.2-35.0 1888 5.0 1887	
Rapid City.....	3,280 9	26.60	30.17	.00	20.0	- 2.0	56	28	31	1	18	20	9	40	8	63	0.17	- 0.6	3	5,674	w.	44	w.	16	15	9	4 3.9-30.9 1882 16.4 1883
Cheyenne.....	6,105 23	29.90	30.29	+ .12	20.4	- 7.0	50	16	32	1	13	23	9	40	7	59	0.72	+ 0.4	6	8,292	w.	50	n.	17	10	14	4 4.2-33.4 1886 18.9 1883
Lander.....	5,377 17	24.57	30.29	.....	12.6	.....	49	28	28	2	15	20	50	2	68	0.92	.....	5	2,830	n.	42	sw.	17	16	10	2 3.2-..... 1882
Kearney.....	2,206 17	27.77	30.24	20.6	54	26	32	1	12	13	9	40	10	67	0.99	3	8,412	n.	48	n.	9	13	9	6 4.1-..... 1882
North Platte.....	2,841 20	27.12	30.26	+ .09	21.4	- 4.7	55	28	34	1	16	13	8	47	10	68	0.29	- 0.1	4	5,935	nw.	30	nw.	9	11	13	4 4.2-35.3 1878 16.8 1883
<i>Middle Slope.</i>					24.2	- 7.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.98	+ 0.4	1	.....	.....	.....	.....	.....	.....	.....
Colorado Springs.....	6,098 16	23.93	30.21	.....	22.9	- 8.0	53	16	36	- 6	11	10	45	6	55	0.05	+ 0.2	4	6,390	n.	64	w.	20	9	13	6 4.6-36.1 1888 22.5 1883
Denver.....	5,287 23	24.69	30.25	+ .09	24.9	- 8.1	55	16	38	- 6	11	12	47	7	48	0.90	+ 0.4	6	4,952	s.	40	n.	17	11	11	6 4.3-38.6 1888 22.0 1883	
Pikes Peak.....	17	17.45	.....	.....	0.4	.....	18	7	4	19	9	5	15	12	62	1.01	.....	9	18,507	w.	92	w.	16	9	10	9 5.5-7.9 1877 0.6 1880
Pueblo.....	4,734 6	25.22	30.22	.....	23.4	.....	53	16	37	- 17	24	10	53	6	54	1.38	.....	7	4,735	w.	41	w.	20	12	11	5 4.3-35.8 1882 23.4 1894
Concordia.....	1,410 9	28.64	30.24	+ .07	24.8	- 4.1	53	7	39	4	14	13	38	14	75	1.35	+ 0.7	4	5,236	n.	35	sw.	16	7	7	4 3-36.0 1892 24.3 1887	
Dodge City.....	2,432 11	27.45	30.23	+ .09	24.3	- 8.0	60	28	35	- 5	13	14	35	14	71	1.03	+ 0.5	8	7,235	n.	45	n.	9	15	5	8 4.6-41.3 1876 24.3 1894	
Wichita.....	1,366 6	25.65	30.21	.....	25.0	- 7.0	60	27	37	1	13	19	34	20	77	1.01	.....	3	7,115	n.	37	n.	19	13	4	11 5.2-37.5 1892 28.0 1894
Oklahoma City.....	1,239 17	28.83	30.21	.....	34.8	.....	67	18	45	2	15	25	35	25	75	1.11	.....	5	7,505	n.	30	n.	19	11	7	10 5.1-..... 1882
<i>Southern Slope.</i>					24.2	- 7.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.98	+ 0.4	1	.....	.....	.....	.....	.....	.....	.....	.....
Abilene.....	1,749 9	28.31	30.21	+ .08	40.8	- 7.3	74	* 51	15	15	12	31	46	28	70	0.75	- 0.4	2	8,315	n.w.	42	w.	3	14	6	8 4.0-51.4 1890 40.8 1894	
Amarillo.....	3,691 17	26.27	30.21	.....	29.0	- 6.2	62	18	39	1	12	19	35	15	63	1.15	.....	1	1,805	n.w.	50	w.	11	6	5.4	..... 1882
<i>Southern Plateau.</i>					42.3	- 5.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.55	- 0.1	1	.....	.....	.....	.....	.....	.....	.....	.....
El Paso.....	3,796 16	26.23	30.16	+ .04	44.3	- 5.6	72	21	56	16	24	32	35	12	33	0.29	- 0.2	1	7,695	n.w.	41	n.w.	8	12	11	5 3.9-57.3 1879 44.3 1894	
Santa Fe.....	7,051 22	23.80	30.16	+ .07	20.2	- 6.7	48	21	35	0	21	17	32	12	58	1.11	+ 0.4	8	4,199	n.e.	36	n.w.	8	12	9	7 4.7-45.1 1879 24.2 1880	
Tucson.....	2,432 11	27.54	30.11	.....	47.3	- 5.9	75	28	62	20	11	33	40	23	47	1.04	+ 0.1	4	5,794	n.e.	60	sw.	10	19	6	3 3.0-58.3 1879 47.2 1880
Yuma.....	141 19	29.93	30.08	+ .03	52.5	- 5.6	83	27	68	30	12	38	42	30	70	1.76	- 0.3	17	4,571	n.e.	52	n.w.	10	17	10	1 3.0-65.0 1877 52.2 1880	
Keeler.....	3,622 9	26.32	30.10	+ .05	27.6	- 6.6	77	21	37	3	13	34	19	41	4.43	- 0.2	2	5,533	e.	52	n.w.	21	19	8	1 2-50.8 1886 40.0 1887		
<i>Middle Plateau.</i>					21.9	.....	40	7	30	- 7	21	14	30	13	68	1.59	.....	10	3,742	se.	27	se.	19	9	6	13 5.5-..... 1882
Carson City.....	4,720 7	25.30	30.21	.....</td																						

TABLE II.—*Meteorological record of voluntary and other co-operating observers, February, 1894.*

Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean.	
Alco.	o	o	o	Ins.
Auburn†.	78	25	52.4	.....
Bermuda † ⁵ .	72	21	48.4	9.78
Birmingham†.	78	24	52.2	9.59
Brenton†.	70 ^d	29 ^d	48.8 ^d	4.49
Carrollton*†.	80	23	51.5	16.54
Citronelle†.	71	23	47.1	4.32
Claiborne Landing†.	74	29	53.6	10.08
Clanton*†.	76	19	46.0	o
Cordova†.	.....	.....	5.39	.....
Demopolis†.	.....	.....	7.72	.....
Eufaula a†.	76	28	53.7	10.20
Florence a†.	.....	.....	6.76	.....
Florence b†.	69	14	41.8	6.44
Fort Deposit†.	74	23	51.0	10.44
Gadsden†.	73	21	46.3	7.36
Geneva†.	80	28	54.4	13.05
Greensboro†.	75	23	47.2	5.61
Healing Springs†.	78	21	47.7	8.24
Highland Home†.	74	26	50.2	7.57
Livingston†.	.....	.....	6.08	.....
Lock No. 4.	.....	.....	5.66	.....
Lynn†.	.....	.....	5.57	.....
Madison Station†.	72	18	47.9	4.98
Maple Grove†.	74	16	48.2	4.48
Marion†.	74	22	48.0	6.24
Newbern†.	72	22	47.9	5.45
Newburg†.	73	14	42.4	5.33
Newton†.	77	26	51.2	14.81
Opelika†.	71	12	48.9	2.22
Oxanna*† ¹ .	68	23	47.4	5.98
Pine Apple†.	75	24	51.1	6.51
Pushmataha†.	75	27	50.3	7.65
Rock Mills†.	72 ^d	20 ^d	44.0 ^d	8.81
Scottsboro†.	69	20	43.3	5.57
Selma†.	.....	.....	13.94	.....
Starlington*† ¹ .	75	24	49.9	11.51
Sturdevant†.	.....	.....	1.71	.....
Talladega a†.	.....	.....	6.02	.....
Talladega b†.	73	15	46.4	5.68
Tallasee Falls†.	.....	.....	8.35	.....
Tuscaloosa†.	77	20	46.4	4.73
Union Springs a†.	75	20	50.2	9.21
Uniontown†.	77	27	49.8	6.61
Valley Head†.	70	17	41.7	5.45
Warrior†.	.....	.....	4.71	.....
Wetumpka.	.....	.....	7.57	.....
Wilsonville†.	.....	.....	5.86	.....
Alaska.	.....	.....	.....	.....
Killisnoo†.	41	7	24.7	8.25
Methakahla†.	43	9	31.4	16.03
Arizona.	.....	.....	.....	.....
Antelope Valley†.	.....	.....	0.20	.....
Ariz. Canal Co. Dam	74	32	52.2	0.49
Banquo* ⁸ .	75	26	51.5	1.50
Bisbee†.	65*	22	41.6	1.25
Buckeye†.	89	26	52.2	0.50
Calabasas†.	69	10	42.7	0.75
Casa Grande* ⁸ .	69	36	48.7	0.10
Dragoon†.	.....	.....	1.77	.....
Dragoon Summit* ⁸ .	66	29	49.5	1.38
Dudleyville†.	78	24	48.0	1.17
Eagle Pass* ³ .	21	33.7	1.63	.....
Farleys Camp ².	.....	.....	10.4	0.60
Flagstaff†.	52	-9	25.5	2.40
Florence†.	76	28	50.0	0.74
Fort Apache†.	66	10	35.2	0.90
Fort Bowie†.	67	16	41.6	2.55
Fort Grant.	67	16	45.6	3.43
Fort Huachuca.	69	18	41.3	2.06
Gila Bend b* ⁸ .	80	32	51.4	0.40
Globe†.	70	24	44.8	1.46
Holbrook†.	63	5	35.3	0.61
Kearns Canyon†.	52	20	27.8	0.63
Lochiel†.	64	14	41.3	1.28
Maricopa* ⁸ .	68	30	48.9	0.12
Mount Huachuca†.	67	15	41.5	2.19
Natural Bridge†.	.....	.....	1.93	.....
Navajo*† ³ .	6	17.5	0.32	.....
Oracle†.	65	22	42.9	1.99
Oro.	.....	.....	1.53	.....
Palomas†.	82	20	47.0	0.05
Pantanico* ⁸ .	76	32	47.6	1.40
Parker†.	79	13	47.7	T.
Payson*†.	66	10	34.3	1.95
Peoria†.	75	30	48.7	0.40
Phoenix a†.	74	22	47.1	0.34
Phoenix b†.	77	28	48.6	0.70
Red Rock*† ⁵ .	75	32	50.3	0.85
Reymert†.	70	23	45.7	1.05
Rye†.	.....	.....	1.19	.....
St. Helena R'†.	69	20	43.4	1.03
San Carlos.	75	18	41.6	1.37
San Simon* ⁸ .	78	27	53.1	0.00
Show Low.	.....	.....	1.16	.....
Signal†.	74	25	45.7	0.35
Texas Hill* ⁸ .	84	27	52.7	0.00
Tucson a†.	74	22	47.8	0.99
Tucson b* ⁸ .	75	30	.....	0.30
Walnut Grove†.	.....	.....	0.75	.....
Walnut Ranch*† ¹ .	65	16	39.3	2.34
Whipple Barracks.	64	-7	28.6	0.30

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean.	
Arizona—Cont'd.	o	o	o	Ins.
Wilgus†.	64	24	40.6	1.37
Willcox* ⁸ .	80	40	51.7	0.00
Yuma* ⁸ .	70	30	51.7	0.00
Arkansas.	.....	.....	.....	.....
Arkadelphia†.	4.78	3.72	4.78	.....
Arkansas City†.	72	18	43.2	5.28
Bee Branch†.	70	20	42.5	9.28
Blanchard Springs†.	75	20	45.6	3.67
Brinkley†.	64	18	37.0	6.52
Camden a†.	.....	.....	.....	.....
Arkansas b†.	71	22	43.6	4.05
Cassville†.	57	13	39.0	6.66
Conway* ¹ .	63	24	41.4	8.23
Corning†.	65	15	36.3	6.54
Dardanelle†.	.....	.....	10.33	.....
Fayetteville†.	65	7	36.3	5.27
Forrest†.	69	23	43.4	6.13
Fulton†.	.....	.....	2.95	.....
Gaines Landing†.	.....	.....	1.57	.....
Hamburg.	75	17	47.2	3.57
Helena a†.	67	18	40.8	7.84
Hot Springs (near).	70	20	42.3	9.92
Keesees Ferry†.	67	7	37.0	5.40
Kirby†.	65	19	41.4	9.45
Lonoke* ¹ .	65	25	43.2	5.63
Madding* ².	.....	.....	40.7	.....
Mount Ida†.	63	15	39.3	10.38
Mount Nebo†.	51	10	30.9	8.31
New Gascony* ¹ .	68 ^b	22 ^b	43.5 ^b	8.84
Newport a†.	.....	.....	9.83	.....
Newport†.	65	18	39.8	8.81
Osceola†.	67	9	39.8	6.25
Ozark†.	67	17	41.8	4.07
Rison†.	70	16	43.8	5.48
Rogers†.	64	0	31.0	3.70
Russellville†.	63	20	41.6	9.20
Searcy†.	65	19	39.0	11.46
Stuttgart†.	66	19	42.1	5.96
Texarkana†.	74	19	45.0	2.38
Warm Springs* ⁸ .	68	12	36.2	6.50
Washington†.	68	20	42.8	4.83
Wiggs†.	.....	.....	9.69	.....
Winslow*† ¹ .	60	7	35.0	5.70
California.	.....	.....	.....	.....
California—Cont'd.	o	o	o	Ins.
Dunsmuir* ⁸ .	60	8	38.0	7.60
East Brother L. H.	.....	.....	1.26	.....
Edgewood* ⁸ .	58	8	33.6	0.50
Edmanton* ¹ .	52	10	29.4	16.48
Eldorado* ⁸ .	70	30	40.6	11.90
Elmira* ⁸ .	70	34	47.6	4.20
El Verano* ⁸ .	67	31	47.8	4.97
Emigrant Gap* ⁸ .	42	8	28.9	15.50
Escondido.	75	33	53.6	0.50
Esparto* ⁸ .	67	34	40.2	2.85
Evergreen.	.....	.....	3.01	.....
Exeter* ⁸ .	74	29	49.9	0.60
Fall Brook* ¹ .	71	30	41.1	1.10
Farmington* ⁸ .	67	30	50.1	5.17
Felton* ⁸ .	80	28	52.1	12.78
Fernando* ⁸ .	70	30	45.7	0.61
Florence* ⁸ .	75	30	49.4	0.25
Florin* ⁸ .	68	30	44.1	3.51
Folsom City a* ⁸ .	67	35	47.1	6.15
Folsom City b* ¹ .	68	32	47.5	6.40
Fort Ross.	.....	.....	6.60	.....
French Corral.	65	26	44.4	6.16
French Corral Corral.	65	26	43.7	2.49
Fresno* ⁸ .	79	32	49.9	2.95
Fruto* ⁸ .	69	32	45.6	1.40
Galt* ⁸ .	67	33	48.8	5.93
Georgetown†.	64	22	39.4	16.25
Girard* ⁸ .	68	30	45.2	0.30
Glendora.	60	12	36.7	1.90
Glen Ellen* ⁸ .	68	28	46.1	8.70
Glendale* ⁸ .	68	28	46.1	1.04
Gridley* ¹ .	66	26	43.7	2.49
Hayward* ⁸ .	55	32	45.9	3.60
Hedding* ⁸ .	62	30	41.9	6.08
Hollister* ⁸ .	72	30	49.1	2.77
Humboldt L. H.	60	5	34.6	0.70
Huron* ⁸ .	65	32	41.0	5.36
Huron Lake* ⁸ .	66	24	42.1	5.90
Hydesville†.	66	24	42.1	5.90
Independence†.	.....	.....	1.24	.....
Iudio* ⁸ .	90	32	44.9	0.00
Indio* ⁸ .	63	29	44.2	6.03
Ione* ⁸ .	63	29	44.2	6.03
Iowa Hill* ¹ .	66	23	40.4	12.25
Jackson.	58	24	39.7	10.84
Jolon.	.....	.....	0.68	.....
Julian.	.....	.....	2.77	.....
Keeler* ⁸ .	65	25	40.8	0.29
Keene* ⁸ .	62	19	41.1	1.65
Kelseyville.	77	26	46.1	6.50
Kennedy Gold.	.....	.....	4.11	.....
Mine.	64	28	43.1	11.86
KingCity* ⁸ .	70	28	47.0	0.60
Kingsburg* ⁸ .	70	33	48.7	0.88
Knights Landing* ⁸ .	68	32	44.6	1.64
Kono Tayee* ⁸ .	63	29	43.7	4.32
Lagrange* ⁸ .	68	30	47.2	6.43
Lathrop* ⁸ .	67	31	47.7	3.80
Laurel* ⁸ .	67	29	45.7	11.33
Lemoore a* ⁸ .	72	28	45.0	0.43
Lemoore b* ⁸ .	70	27	47.0	0.41
Lick Observatory†.	54	16	35.6	10.52
Lime Point L. H.	.....	.....	2.25	.....
Little Bear Valley.	.....	.....	1.24	.....
Little Bear Valley (near).	.....	.....	1.24	.....
Livermore* ⁸ .	65	30	49.0	5.36
Lodi.	65	32	49.7	2.95
Long Beach* ⁸ .	72	32	49.9	....
Los Angeles* ⁸ .	70	32	49.6	0.78
Los Banos* ⁸ .	58	30	46.1	1.50
Los Gatos a* ⁸ .	74	31	49.4	4.35
Los Gatos b* ⁸ .	64	29	45.2	5.22
Lower Holcomb Valley.	.....	.....	0.90	.....
Manzanita* ¹ .	65	19	39.2	0.37
Mammoth Tank* ⁸ .	82	33	52.6	0.00
Mare Island L. H.	.....	.....	2.72	.....
Mariposa* ⁸ .	64	22	41.2	9.01
Martinez* ⁸ .	60	32</		

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
California—Cont'd.	o	o	o	Ins.	Colorado—Cont'd.	o	o	o	Ins.
Snedden's Ranch	....	....	....	0.65	Moraine†	41	-16	18.9	0.97
Soledad*	72	28	47.5	....	Pagoda (near)†	41	-22	11.7	3.00
Sonoma*	68	31	44.9	3.96	Paonia†	....	....	1.35	....
S.E. Parralon L.H.	....	....	....	....	Parachute†	50	11	29.0	0.65
South Vallejo*	68	36	48.2	1.98	Red Cliff	....	....	0.85	....
Spadra*	81	30	51.3	0.09	Rico	....	....	2.89	....
Squirrel Inn	....	....	....	....	River Bend*	60	-6	28.7	1.20
Stockton*	65	31	46.2	4.93	Rocky Ford†	59	-13	24.5	0.95
Stockton b*	65	33	50.4	5.44	Saint Cloud	....	....	0.72	....
Suisun City*	70	34	48.7	2.29	Sanborn	....	....	0.70	....
Summit*	38	5	23.9	....	San Luis†	51	-29	21.0	1.10
Susanville*†	53	3	30.0	3.53	Scissors†	....	....	2.30	....
Sutter Creek*	60	23	38.0	7.70	Seibert†	....	....	1.00	....
Tehachapi a*	55	18	35.2	1.68	Smoky Hill Mine†	59	-15	23.7	1.00
Tehachapi b†	94	11	32.2	1.11	Stamford†	50	-15	17.2	3.50
Tehama*	70	32	49.4	1.82	Steamboat Spring†	38	-34	6.7	1.80
Templeton*	75	28	47.3	0.87	Surface Creek†	50	1	25.1	1.50
Towles*	93	14	36.7	10.10	Thon†	60	-11	25.4	0.07
Tracy*	66	29	47.1	2.09	T. S. Ranch†	49	1	25.2	1.03
Traver*	65	44	51.6	1.05	Twin Lakes	....	....	0.39	....
Trinidad L.H.	....	....	....	....	Vilas	....	....	2.00	....
Tropic*	73	34	48.2	0.73	Wallet†	....	....	1.16	....
Truckee*	45	-5	23.7	10.95	Ward District	....	....	0.86	....
Tulare a*	72	30	49.4	0.37	Watkins*†	50	0	24.1	0.90
Tulare b	....	....	....	Yuma	....	....	0.90	....
Tulare c	82	26	49.8	0.38	Zuck	....	....	0.80	....
Tunnel No. 2	....	....	....	Connecticut	....	....	....	....
Turlock a*	70	32	43.8	2.37	Bridgeport*†	48	-2	26.3	4.57
Turlock b†	68	27	46.4	2.17	Canton	50	-16	23.4	3.58
Ukiah†	66	26	43.5	9.41	Colchester	50	-7	24.8	2.00
Upper Lake	68	25	42.5	6.21	Falls Village	....	....	2.17	....
Upper Mattole*†	71	28	44.6	11.97	Greenfield Hill	....	....	4.65	....
Vacaville a*	73	33	47.6	4.50	Hartford b	....	....	4.60	....
Vacaville b*	73	33	47.9	4.75	Hartford c	50	-7	24.8	2.98
Valley Springs*	69	34	49.5	5.88	Lake Konomoc	....	....	1.83	....
Ventura†	69	36	50.3	0.50	Lebanon	....	....	4.63	....
Vine*	67	37	48.1	2.51	Middleton	50	-7	25.5	4.18
Volcano Springs*	90	33	55.3	0.00	New Hartford a*†	52	-17	22.1	2.90
Walnut Creek	70	30	46.3	3.79	New Hartford b	....	....	2.00	....
Weaverville†	82	10	44.4	5.02	N. Grosvenor Dale	50	-12	25.3	2.48
West Butte*	64	29	....	1.10	Norwalk	50	6	24.6	3.17
Westley*	68	33	48.7	1.78	Southington*†	48	8	24.3	3.85
West Point	....	....	....	South Manchester	....	....	3.17	....
Wheatland	70	31	46.4	3.82	Storrs	47	-12	22.5	3.13
Whittier*	78	40	57.6	0.55	Thompson*†	44	-10	22.2	2.00
Williams*	68	30	47.4	1.07	Voluntown†	56	-16	25.1	3.72
Willows a†	62	29	41.9	1.12	Wallingford†	....	....	5.45	....
Willows b*	65	30	44.7	0.95	Waterbury	49	-8	24.8	4.13
Winchester†	79	21	47.6	0.32	West Simsbury	....	....	2.62	....
Winters*	59	34	43.9	3.53	District of Columbia	....	....	....	....
Wire Bridge*	68	28	49.7	0.07	Disting' Reserv't*†	58	14	35.2	4.02
Woodland*	68	31	46.1	2.00	Rec'g Reserv'r*†	58	15	35.0	3.33
Yerba Buena L.H.	....	....	....	West Washington	68	14	37.8	4.35	
Yreka†	61	1	32.9	3.22	Florida	....	....	....	....
Yuba City*	67	38	49.2	2.32	Amelia†	76	34	57.0	4.70
Colorado.	....	....	....	Archer†	85	32	61.7	4.88	
Abbott	....	....	....	Brooksville†	80	33	61.8	3.42	
Akron†	69	-16	26.4	1.10	Clermont†	83	37	64.0	1.82
Alma!	37	-17	11.8	0.95	De Land†	83	35	62.7	1.90
Amherst†	....	....	....	Eustis†	84	35	64.2	0.98	
Arboles	....	....	....	Federal Point†	82	34	60.9	2.10	
Avoca	....	....	....	Fort Meade†	83	37	63.7	1.40	
Boulder†	....	....	....	Grasmere†	83	34	64.1	1.13	
Breckenridge†	56†	-81	27.6	0.82	Green Cove Spgs†	79	33	57.7	1.88
Brush†	41	-25	9.8	7.77	Homeland†	84	34	64.0	1.79
Byers*	60†	-15	17.6	0.34	Kissimine†	85	30	66.8	1.00
Canyon†	52	2	21.1	0.54	Lake City†	77	34	61.8	4.45
Castle Rock†	58	-13	26.6	0.63	Milford	62	10	35.8	5.00
Cheyenne Wells*†	50	-5	19.3	1.30	Millsboro	68	12	36.6	4.95
Climax*†	31	-12	7.0	4.70	Seaford†	67	10	36.6	4.66
Collbar	....	....	....	Amelia†	76	34	57.0	4.70	
Como (near)†	35	9	14.5	0.58	Archer†	85	32	61.7	4.88
Cope†	57	-11	21.8	0.80	Brooksville†	80	33	61.8	3.42
Deer Trail*	54	-5	24.4	0.50	Clermont†	83	37	64.0	1.82
Delta†	56	-14	24.2	0.90	De Land†	83	35	62.7	1.90
Divide Ex. Station	50	-17	18.4	1.11	Eustis†	84	35	64.2	0.98
Downing†	65	-10	24.2	1.17	Federal Point†	82	34	60.9	2.10
Dumont	45	-13	21.6	0.90	Fort Meade†	83	37	63.7	1.40
East Dale	....	....	....	Grasmere†	83	34	64.1	1.13	
First View*	56	22.5	0.85	Green Cove Spgs†	79	33	57.7	1.88	
Fort Collins†	55	-15	18.7	0.60	Homeland†	84	34	64.0	1.79
Garnett	....	....	....	Kissimine†	85	30	66.8	1.00	
Glen Eri'e†	52	-6	24.0	0.39	Lake City†	77	34	61.8	4.45
Glenwood Spgs†	52	-2	27.4	0.87	Milford	62	10	35.8	5.00
Gold Hill	50	-6	25.3	0.88	Merrits Island†	82	45	65.1	0.21
Grand Junction†	52	12	29.8	0.47	Moseley Hall†	75	28	56.8	9.00
Greeley†	64	-13	19.5	0.40	Mullet Key†	75	40	63.2	1.88
Gunnison†	42	-34	4.2	2.10	Myers†	75	42	66.3	1.55
Hugo*	60	-4	24.5	0.50	New Smyrna†	83	35	62.4	0.60
Hugo (near)†	58	-14	20.6	0.29	Oil Hill†	80	39	67.6	....
Husted†	58	-9	24.2	0.39	Oreana†	84	32	62.0	1.43
Idaho Springs†	47	-12	21.2	0.52	Orange City†	86	33	65.4	1.98
Kirk	....	....	....	Orlando†	86	33	62.8	0.88	
Kit Carson*	60	-6	22.0	0.52	Oxford*†	80	34	59.7	1.83
La Jara†	55	-9	21.9	1.33	Plant City†	86	33	65.4	1.98
Las Animas†	58	-18	17.8	1.10	Saint Francis Bks†	81	31	59.0	1.61
Lay*†	46	-22	11.0	1.29	Orlando†	86	33	62.8	0.88
Le Roy*†	50	-12	20.1	0.46	Oxford*†	80	34	59.7	1.83
Leslie	....	....	....	Plant City†	86	33	65.4	1.98	
Loreland	....	....	....	Saint Francis Bks†	81	31	59.0	1.61	
McCoy†	....	....	....	Orlando†	86	33	62.8	0.88	
Mannhattan	....	....	....	Oxford*†	80	34	59.7	1.83	
Meeker†	54	-21	16.2	1.45	Saint Petersburg†	82	38	65.0	1.90
Minneapolis†	62	-11	23.8	1.30	Tallahassee†	77	28	54.3	1.19
Monte Vista b	52	-15	17.6	0.98	Tarpon Springs†	85	36	64.2	1.92
Georgia.	....	....	....	Georgia	....	....	....	....
Aldairsville†	74	20	43.9	4.91	Blakely*†	75	28	53.4	9.89
Brag†	78	25	54.8	4.43	Blakely*†	75	22	44.9	2.23
Camilla†	77	26	53.4	9.36	Clayton†	71	17	42.8	6.53
Clayton†	71	17	42.8	5.32	Cohutta†	70	20	45.1	5.20
Covington†	70	20	46.3	5.77	Dahlonega†	70	17	45.3	7.26
Darien†	81	30	57.6	4.50	Diamond†	75	25	53.6	5.10
Diamond†	75	25	53.6	8.01	Elberton†	72	20	45.8	5.38
Fleming†	78	24	53.8	4.63	Fleming†	78	24	53.8	4.63

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean	
Georgia—Cont'd.	o	o	o	Ins.	Georgia—Cont'd.	o	o	o	Ins.	Georgia—Cont'd.	o	o	o	Ins.
Forsyth*†	78	26	52.3	9.69	Forsyth*†	78	20	44.9	9.90	Forsyth*†	78	26	52.3	3.05
Gillsville*†	70	22	52.6	9.11	Gillsville*†	75	22	52.6	9.11	Gillsville*†	70	22	52.6	3.20
Hephzibah*†	67	24	50.5	5.90	Hephzibah*†	70	20	43.5						

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Iowa—Cont'd.	0	0	0	Ins.	Kentucky—Cont'd.	0	0	0	Ins.
Ovid †	61	-2	22.8	1.96	Lagrange †	60 ^f	7 ^f	32.2 ^e	1.34
Panama†	46	-12	17.8	0.31	Louisa †	67	15	37.2	3.91
Richland* ¹	54	-7	20.1	1.47	Middlesboro †	66	9	34.2	4.13
Rock Rapids.	46	-14	14.5	T.	Mount Sterling †	65	15	38.2	5.58
Rockwell City	.....	.....	0.22	.....	Munfordville † ¹	65	9	34.2	4.21
Sac City †	45	-12	17.0	0.55	Pattucala †	67	15	38.2	5.56
Seymour †	57	0	24.6	2.41	Paducah †	65	18	36.9	5.63
Sibley.	42	-13	13.4	T.	Pellville †	67 ^d	5 ^d	35.4 ^d	4.53
Spirit Lake †	45	-13	15.0	0.10	Princeton †	65	6	35.6	6.46
Tipton †	49	-9	21.2	1.86	Russellville †	70	13	38.0	7.99
Toledo* ¹	50	-11	20.5	0.60	Sandy Hook †	69	10	37.2	3.11
Villisca †	54	-5	21.2	1.42	Shelby City* ¹	66	10	35.6	4.07
Vinton* ¹	51	-9	19.7	0.80	Shelbyville †	67	8	34.7	4.58
Washington †	58	-5	22.6	1.25	South Fork †	.....	.....	35.8	3.07
Webster City* ¹	48	-12	17.0	0.75	Springfield †	67	10	36.7	4.04
West Bend* ¹	44	-12	14.1	0.60	Williamsburg †	.....	.....	6.91	.....
Williams* ¹	46	-16	16.3	0.33	Louisiana.	.....	.....	.....	.....
Winterset †	50	-9	21.3	1.30	Abbeville.	84	25	53.4	9.47
Kansas.	.....	.....	.....	.....	Alexandria †	70	19	44.3	9.47
Abilene †	66	-2	28.3	1.15	Amitie †	84	22	51.6	9.47
Achilles* ¹	55	-10	12.4	1.11	Bastrop †	77	22	47.0	2.94
Allison* ¹	56	-10	17.0	1.24	Baton Rouge †	76	27	52.8	6.05
Altoona* ¹	58	-1	27.2	1.05	Calhoun †	76	22	44.8	4.02
Atchison †	66	0	26.2	0.92	Cheneyville †	30	51.8	6.48	.....
Bucklin.	.....	.....	0.20	.....	Clinton †	75 ^b	25 ^b	55.8 ^b	6.02
Burlington †	58	-8	26.6	1.94	Coushatta †	.....	.....	2.95	.....
Colby †	56	-15	21.3	0.90	Covington †	80	22	48.6	4.21
Coldwater †	79 ^c	-4 ^c	31.0 ^c	0.70	Davis.	28	.....	12.48	.....
Columbus †	53	-1	30.4	1.04	Delhi †	78	14	44.4	5.95
Coolidge †	57	-13	23.0	0.50	Donaldsonville †	82	29	58.0	10.15
Cunningham †	62	-2	27.3	0.95	Emilie †	77	24	54.1	12.93
Downs.	.....	.....	2.25	.....	Farmerville.	74 ^b	22 ^b	45.8 ^b	4.85
Eldorado †	57	-5	30.0	0.10	Franklin †	76	27	55.4	9.09
Elk City* ¹	63	1	30.9	1.27	Girard †	75	24	45.0	2.97
Emporia †	60	0	28.6	1.95	Grand Coteau.	82	29	54.2	5.05
Englewood †	64	-6	26.8	0.50	Hammond †	80	24	53.1	7.89
Eureka Ranch †	57	-11	20.6	2.52	Houma †	80	27	57.2	10.30
Fort Riley †	63	-3	23.6	0.54	Jeanerette †	80	27	54.3	10.23
Garden City †	60	-6	22.0	0.55	Lafayette †	81	26	54.9	5.84
Garfield.	.....	.....	0.24	.....	Lake Charles †	86	20	50.0	6.50
Gove* ¹	62	2	22.7	1.27	Lake Providence †	74 ^c	21	45.4	4.07
Grenola* ¹	61	6	29.5	1.20	Lawrence †	75 ^c	30 ^c	53.7 ^c	8.75
Grinnell* ¹	60	0	29.4	0.87	Liberty Hill.	82 ^c	21 ^c	44.3 ^c	3.85
Halstead* ¹	62	-2	27.7	0.88	Maurepas.	84	23	53.7	7.57
Hays City †	63	-12	23.8	0.95	Melville †	86	34	58.4	7.24
Horton †	60	-1	25.8	1.00	Minden †	78	22	47.4	2.92
Hutchinson †	72	-3	29.8	1.20	Monroe †	76	28	48.5	3.20
Independence †	60	-2	30.6	2.12	Natchitoches †	86	22	49.0	5.34
Ionia†	64	-12	21.5	0.70	New Iberia.	76	29	52.0	9.27
Johnson †	52	-11	22.6	1.08	Opelousas †	87	26	53.8	8.48
Kiowa †	63	2	29.6	0.39	Oxford †	81	20	46.4	4.92
Lakin †	57	-16	24.4	1.20	Paincourtville †	81	27	54.0	10.26
Lawrence* ¹	58	2	28.0	2.75	Plain Dealing.	72	21	45.3	3.11
Lebo†	62	4	28.1	2.82	Rainey †	72	21	45.3	3.11
Leoti †	56	-12	20.6	2.10	Roseland.	83	22	52.4	5.43
Macksville †	61	-5	25.3	0.48	Schriever †	79	26	55.2	9.03
McPherson †	60	-2	23.9	0.40	Shell Beach.	74	32	54.4	6.85
Manhattan b	67	-11	26.2	1.10	Sugar Ex. Station †	86	29	53.2	13.43
Manhattan c* ¹	57	-6	23.7	1.50	Thibodeau.	78	17	46.6	8.07
Marion †	60	-3	25.8	1.82	Wallace.	81	30	54.4	11.58
Marmaton.	.....	.....	0.95	.....	West End.	.....	.....	13.23	.....
Medicine Lodge.	.....	.....	0.47	.....	Winnfield †	80	23	48.5	6.01
Minneapolis* ¹	61	-8	23.4	0.70	Maine.	.....	.....	.....	.....
Morland †	62	-15	21.2	1.45	Bar Harbor.	44	-14	21.2	1.47
Morton †	58	-9	25.1	1.00	Belfast* ¹	41	-15	17.9	3.05
Mount Hope* ¹	60	2	28.2	1.40	Calais †	45	-14	18.8	3.35
Norton †	61	-13	22.7	1.20	Cornish* ¹	47	-18	18.8	2.51
Oberlin †	.....	.....	1.29	.....	East Machias †	43	-17	16.8	4.53
Olathe †	61	-4	28.9	2.33	Fairfield.	46	-31	13.0	1.32
Oswego †	65	-8	29.1	1.10	Farmington †	48	-31	15.2	3.05
Phillipsburg †	58	-10	19.6	1.40	Fort Kent †	41	-31	9.2	3.05
Pleasant Dale †	59	-9	22.9	1.20	Gardiner.	47	-23	18.0	2.51
Quinter* ¹	56	-9	19.2	1.20	Houlton †	46	-37	9.4	1.75
Rome* ¹	57	0	29.5	0.97	Indian Stream.	44	-28	8.5	1.01
Sedan †	61	-1	30.4	1.22	Kents Hill.	46	-22	13.2	1.01
Sharon Springs* ¹	64	-6	26.5	0.95	Fairfield.	46	-31	13.0	1.01
Sterling †	60	-1	28.2	1.35	Farmington †	48	-31	15.2	3.05
Topeka	67 ^b	-2 ^b	28.8	1.25	Farmington †	48	-31	15.2	3.05
Tribune †	56	-10	21.4	1.50	Farmington †	48	-31	15.2	3.05
Ulysses †	56	-8	22.1	0.97	Farmington †	48	-31	15.2	3.05
Wakefield* ¹	62	-2	27.0	0.34	Farmington †	48	-31	15.2	3.05
Wallace †	.....	.....	1.40	.....	Farmington †	48	-31	15.2	3.05
Wamego* ¹	62	-2	25.6	1.09	Farmington †	48	-31	15.2	3.05
Yates Center †	59	.....	1.90	.....	Farmington †	48	-31	15.2	3.05
Kentucky.	.....	.....	.....	.....	Farmington †	48	-31	15.2	3.05
Alpha* ¹	72	18	43.9	3.29	Maryland.	.....	.....	.....	.....
Bowling Green a* ¹	67	11	35.5	6.99	Bachmans Val. * ¹	52	3	27.8	3.10
Bowling Green b†	74	14	36.5	6.37	Benedict †	67	15	33.6	3.38
Caddo* ¹	61	11	39.7	5.45	Boettcherville* ¹	58	2	30.1	4.50
Canton* ¹	66	16	37.7	3.54	Cambridge.	64	14	37.8	5.70
Carrollton* ¹	67	10	33.9	3.82	Charlotte Hall †	68	15	36.0	3.46
Catlettsburg † ⁵	64	18	36.8	3.99	Chesertown †	59	9	33.2	2.55
Earlington.	67	11	36.4	6.84	College Park.	59	14	35.0	3.88
Eddyville †	.....	.....	6.24	.....	Cumberland a†	52	6	31.2	3.76
Edmonton †	66 ^b	9 ^b	37.3 ^b	5.47	Cumberland b.	58	6	35.9	4.14
Elizabethtown †	61	2	34.8	4.48	Denton †	52	9	33.0	5.11
Eubauk †	70	6	36.2	4.47	Easton †	63	14	37.0	4.09
Falmouth †	.....	.....	3.09	.....	Fallston †	54	6	32.0	4.36
Fordy Ferry †	65	12	36.4	4.72	Fenby* ¹	59	4	30.4	3.94
Franklin* ¹	68	15	37.7	6.00	Great Falls* ⁵	56	14	34.6	3.28
Greendale* ¹	66	9	35.0	3.68	McDonogh* ⁵	56	14	34.6	3.28
Greensburg* ¹	66	14	36.5	3.84	Mardela Springs †	54	8	33.6	3.66
Harrodsburg †	69	5	36.3	4.12	Mt. St. Marys Col.	55	3	29.4	3.26
Henderson* ¹	69	11	37.8	4.21	New Market* ¹	53	10	31.4	2.43

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean	
Maryland—Cont'd.	0	0	0	Ins.	Oakland* ¹	52	-10	27.8	5.83	Michigan—Cont'd.	0	0	0	Ins.
Lagrange†	60 ^f	7 ^f	32.2 ^e	1.34	Solomons†	56	-3	27.6	3.91	Bronson.	50	-13	22.2	1.80
Louisa †	.....	.....	3.58	.....	Taneytown†	56	-3	27.6	6.15	Brown City.	47	-11	21.4	5.10
Middleboro †	66	9	34.2	4.21	Upper Marlboro †	62	13	35.1	4.00	Calumet.	40	-16	13.3	0.96
Munfordville † ¹	65	15	38.2	5.56	Woodstock.	55	7	32.4	2.31	Charlevoix.	53	-14	14.2	0.65
Paducah †	65	18	36.9	5.63	Massachusetts.	Adams.	50	2	24.4	4.15	Cheboygan.	50	-22	24

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean	
Minnesota—Cont'd.	0	0	0	Ins.	McCune* ¹	0	—4	26.8	2.55	Nebraska—Cont'd.	0	0	0	Ins.	New Jersey—Cont'd.	0	0	0	Ins.
Pokemana Falls ¹	45*	—42	6.0	0.21	Marceline	55	—4	26.8	2.55	North Loup [†]	53*	—15	20.7	0.31	Belvidere	54	—4	26.3	4.66
Red Lake [†]	44	—25	9.8	0.14	Marshall [†]	58	—1	26.8	2.30	Ogalalla [†]	52	—14	21.0	.....	Beverly [†]	58	1	31.1	4.54
Red Wing [†]	0.35	.....	Mexico [†]	58	0	26.2	2.35	O'Neill [†]	51	—14	15.7	0.66	Billingsport [†]	56	4	29.0	4.22
Redwood Falls [†]	0.00	.....	Neosho	64	10	33.8	3.38	Ough [†]	51	—14	15.7	0.31	Blairstown	57	5	27.4	3.25
Rochester	50	—17	16.2	0.25	New Boston	62	—3	32.2	3.44	Plattsburgh [†]	51	—14	22.3	.....	Boonton	51	—4	26.6	3.39
Rolling Green [†]	42	—10	14.6	0.20	New Hartford [†]	52 ⁴	—8 ⁴	24.3 ⁴	1.86	Ravenna	55	—17	20.0	0.52	Bridgeton	60	9	35.5	5.04
Rush City [†]	42	—26	12.0	0.10	New Haven [†]	60	—3	27.5	.....	Red Cloud	52	—13	16.5	0.51	Camden	56	5	31.2	3.88
Saint Charles [†]	42	—17	16.0	0.40	New Madrid	65	0	31.2	4.27	Santee Agency [†]	52	—13	16.5	0.18	Cape May	60	8	30.4	3.51
Saint Cloud [†]	42	—14	13.8	0.00	New Palestine	65	18	38.9	0.63	Seward [†]	65	—3	19.8	1.95	Cape May C. H [†]	62	5	35.2	4.33
Saint Peter [†]	44	—11	16.8	0.10	Oak Ridge [†]	61	8	30.7	1.75	Springview	55	—13	17.3	0.35	Charlottesville	51	—8	24.5	5.04
Sandy Lake Dam [†]	35	—27	8.6	0.23	Olden [†]	68	9	33.6	3.28	Stanton [†]	48	—13	16.9	0.25	Chester	47	7	24.8	5.46
Sauk Center	42	—22	9.4	T.	Oldenburg	68	—3	24.3	1.86	State Farm	56	—7	21.2	1.87	Deckertown	49	—11	23.6	4.35
Starbuck	42	—16	11.6	T.	Oregon [†]	63	—	25.8	5.75	Superior ^{*6}	57	—10	24.8	0.12	Dover	54	4	24.5 ^d	4.64
Sunrise City ^{*6}	42	—24	12.5	0.25	Palmira [†]	60	0	25.4	1.91	Sutton	55	8	20.9	1.40	Egg Harbor City	60	3	32.7	5.29
Wabasha [†]	44	—12	17.9	0.35	Panacea	65	—	28.6	2.33	Table Rock [†]	58	—4	24.4	1.39	Elizabeth [†]	57	—1	30.1	4.38
Willmar [†]	40	—14	12.2	0.25	Paris	69	—2	28.6	2.33	Tecumseh [†]	57	—4	23.5	1.55	Franklin Furnace	48	9	22.0	5.09
Winona [†]	50	9	19.0	0.58	Phillipsburg ^{*†}	58	3	30.3	1.93	Wallace [†]	56	—12	21.4	0.70	Franklinville	59	3	31.3	4.94
Worthington	41	—14	13.8	0.03	Pickering ^{*3}	58	4	23.2	2.15	Weeping Water ^{*1}	52	—15	17.4	1.58	Freehold	60	0	29.8	3.45
Mississippi.	.....	.....	6.53	.....	Platte River ^{*3}	55	6	24.2	2.15	West Point ^{*8}	—8	17.94	0.44	Friesburg	.....	.....	.....	4.16	
Aberdeen [†]	Poplar Bluff	64	12	36.5	5.00	Whitman [†]	48	—12	14.3	0.20	Gillette	49	—3	26.0	4.51
Agricult'ral Col'ge	73	22	45.6	4.73	Princeton [†]	59	—2	24.0	2.40	Wilcox [†]	53	0	21.2	1.00	Hannover	48	—2	27.4	4.29
Batesville [†]	57	7	41.8	7.10	Round Spring	59	—	24.0	2.40	Nevada.	.....	.....	.....	Highland Park [†]	52	—1	28.3	3.86	
Briers	70	28	51.6	9.95	Saint Charles	61	0	30.2	2.37	Austin	47	—6	23.8	1.89	Hightstown	54	7	30.9	3.57
Brookhaven [†]	78	19	45.5	7.61	Saint Joseph [†]	61	—	24.0	2.37	Battle Mountain [†]	52	—6	32.0	1.25	Imlaysontown	53	2	31.2	3.93
Canton [†]	73	25	43.2	5.49	Saint Louis	62	3	30.7	2.38	Belmont	47	—5	20.8	1.21	Junction	.....	.....	.....	3.82
Clarksdale [†]	70	10	42.7	7.00	Saxori [*]	60	0	30.8	1.88	Beowawe [†]	50	—8	23.3	1.15	Lambertville	52	4	29.4	4.22
Columbus ^{a†}	.....	.....	4.88	.....	Sublett	64	—10	31.0	1.83	Candelaria [†]	67	7	32.6	0.30	Millville	52	4	34.2	4.27
Crystal Springs [†]	76	24	53.4	7.26	Sedalia [†]	59	—4	27.4	2.31	Carlin [*]	42	—16	16.0	2.40	Moorestown	58	3	30.7	3.93
Edwards	75	23	47.6	5.49	Shelbyina	59	—	24.0	2.31	Carson City [†]	61	—12	29.7	2.83	Newark ^a	50	2	27.8	4.71
Enterprise [†]	77	20	47.6	6.97	Steffenville	.....	.....	.....	.....	Empire Ranch [†]	45	—20	17.2	1.89	New Brunswick ^a	55	—2	29.1	3.99
French Camps [†]	67	12	42.4	4.41	Sublettad [†]	64	—10	31.0	1.83	Eureka [†]	53	—	20.9	1.24	Plainfield	51	1	28.1	4.62
Greenville ^a	67	25	43.8	3.18	Unionville	56	3	25.6	3.00	Fenelon [*]	45	—10	19.6	1.20	Rancocas [*]	56	—	4.00	.....
Hattiesburg [†]	74	22	45.0	3.19	Vermont [†]	55	—1	27.6	2.70	Hawthorne ^a	50	—6	20.9	1.20	Readington [*]	62	6	34.2	.....
Hernando [†]	67	11	41.7	4.66	Vilas	51	—	24.0	2.75	Hawthorne ^b	50	—6	20.9	1.20	River Vale	52	—6	26.8	5.85
Itta Bena [†]	72*	24	45.2	6.46	Virgil City	51	—	24.0	2.75	Hedge [†]	48	—26	15.3	1.55	Salem	60	2	32.0	4.43
Jackson [†]	75	24	49.4	4.41	Warrenton	59	5	28.4	2.40	Henderson [†]	50	—5	24.6	1.00	Somerville	59	—5	29.4	4.32
Kosciusko [†]	76	22	45.4	5.60	Wheatland	59	—	24.0	2.40	Hopkins [†]	53	—7	29.8	2.82	South Orange	51	—	27.2	5.23
Lake [†]	71	21	45.4	7.04	Whiteside	53	5	28.4	3.00	Humboldt [†]	67	10	31.4	0.40	Tensfay	55	—5	27.6	5.30
Leakesville [†]	83	25	46.0	9.50	Fort Missoula	44	—12	14.0	0.14	Irene [†]	60	4	30.4	5.39	Toms River	59	1	32.0	5.62
Louisville [†]	74	19	45.3	5.26	Glasgow [†]	52	—26	7.2	2.70	Lovecock [†]	58	—1	31.1	0.45	Trenton	56	—	32.6	3.30
Macon [†]	75	20	45.2	7.20	Glengow [†]	52	—26	20.9	0.10	McGill [†]	40	—11	19.4	1.12	Vineland	61	3	33.2	5.21
Mayserville ^c	82	23	49.1	3.25	Glendive [†]	51	—23	11.0	0.20	Woodbine	62	3	32.8	4.36	Whiting	60	2	33.2	3.53
Natchez [†]	78	25	49.6	6.10	Great Falls [†]	49	—20	20.0	0.21	New Mexico.	.....	.....	.....	Woodbine	62	3	32.8	4.36	
Okolona [†]	5.21	.....	Martinsdale [†]	54	—23	18.0	0.11	Albert [†]	59	3	31.6	0.65	Albuquerque [†]	62	7	32.6	0.31
Palo Alto [†]	74	20	45.8	4.66	Bearcat [†]	54	—23	18.0	2.00	Palmetto	60	—5	24.6	1.00	Bloomfield [†]	59	—7	26.6	0.95
Pontotoc [†]	70	18	44.4	7.61	Bration [†]	54	—23	16.0	0.11	Paradise [†]	53	—4	25.4	1.00	Champe [†]	51	—18	22.8	2.70
Port Gibson [†]	79	19	47.4	5.56	Brown [†]	54	—23	12.8	0.28	Reno [†]	55	—8	35.6	1.20	Coolidge [†]	50	10	34.2	1.20
Stone [†]	75	28	51.0	.....	Callaway [†]	41	—28	29.6	0.20	Saint Clair	61	—1	29.2	0.84	Deming [*]	71	26	40.3	0.66
Thornton ^{*4}	76	26	47.7	3.53	Columbus [†]	49	—10	17.6	0.49	South Camp [†]	62	—5	29.4	3.36	East Las Vegas [†]	58	—12	28.3	1.66
Topton ^{*3}	72	28	46.6	6.50	Cornlea [†]	49	—10	17.6	0.36	Stofel	50	—41	16.5	2.70	Estancia Springs [†]	58	—4	26.5 ^d	0.69
University [†]	99	15	40.7	5.23	Crete [†]	53	—8	20.0	0.21	Sunnyside	53	—20	19.2	0.72	Falmouth [†]	56	8	35.4	1.04
Vaident [†]	75	15	47.2	5.56	Culbertson [†]	53	—8	20.0	0.21	Toano [†]	45	—10	17.4	0.80	Fort Bayard	62	2	34.8	0.61
Water Valley ^{*1}	68	12	43.0	3.08	Bratton [†]	55	—2	23.2	1.36	Tybo [†]	50	—2	27.3	0.75	Fort Stanton [†]	68	2	34.8	1.85
Waynesboro ^{a†}	77	22	47.1	7.65	Burwell [†]	60	—10	21.9	0.20	Verdi [†]	60	5	28.8	5.42	Fort Wingate	62	2	26.6	0.50
Woodville [†]	77	25	51.2	7.31	Callaway [†]	57	—19	19.4	0.15	Virginia City [†]	51	5	29.6	5.14	Gallinas Spring [†]	60	—8	29.1	1.10
Yazoo City [†]	76	22	48.6	5.24	Columbus [†]	49	—10	17.6	0.49	Wells [†]	45	—29	13.1	2.22	Halls Peak [†]	53	—15	33.5	1.55
Yazoo City [†]	50	—10	21.9	0.20	Winnemucca [†]	54	—8	27.8	0.95	Las Cruces [†]	58	—12	28.3	1.66
Akron	.....	.....	1.60	.....	.....	50	—11	15.5	0.20	Aisted ^{**4}	41	—22	15.2	1.85	Lordsburg [†]	60	24	43.9	0.50
Appleton City [†]	59	—2	29.6	1.50	Bratton [†]	52	—17	20.3	0.43	Arnim [†]									

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
New York—Cont'd.	0	0	0	Ins.	N. Dakota—Cont'd.	0	0	0	Ins.
Fleming	45	-13	20.6		Devils Lake	39	-24	5.0	Milfordton
Fort Niagara†	48	-5	26.5	1.25	Dickinson†	52	-21	9.5	Milligan
Friendship	51	-20	21.0	3.17	Fargo†	38	-22	6.2	Montpelier
Glens Falls	45	-22	17.3		Forman†	48	-20	10.6	Napoleon
Gloversville	43	-24	15.7	3.19	Fort Berthold	56	-28	8.1	Nelsonville
Hess Road Stn†	46	-5	24.5	1.27	Fort Stevenson†	43	-28	7.0	New Alexandria
Honeymead Brook	48*	-13	21.5	3.14	Fort Yates†	49	-21	9.4	New Berlin
Humphrey†	54	-6	23.8	1.83	Grafton†	46	-28	6.9	New Bremen
Ithaca	47	-14	22.2	2.31	Grand Forks†	44	-23	7.0	New Comerstown
Jamestown*6	45	-10	24.5		Grand Forks†	40	-20	9.9	New Holland
Kings Station	.....	.....	3.15		Jamestown†	52	-19	11.0	New Paris
Le Roy	48	-20	20.5	3.06	Kelso†	49	-20	10.4	North Lewisburg
Lockport	44	-10	21.8	2.51	Lemert†	47	-25	7.9	North Royalton
Lowville	43	-30	15.0	3.43	McKinney	39	-25	6.0	Oberlin
Madison Barracks†	42	-24	17.2	2.62	Milton†	40°	-28	3.9 ^b	O. S. University
Malone	42	-21	14.5	2.20	Minto†	46	-22	8.2	Orangeville
Middletown	49	-9	22.0 ^a	3.96	Napoleon†	38	-23	7.4	Pataskala
Minnewaska	44	-10	20.7	3.10	New Salem	55	-23	12.5	Platissburg
Mount Morris	53	-17	21.2	2.78	Oakdale†	48	-24	12.8	Pomeroy
Newark Valley	.....	.....	2.80	Portal†	44	-40	5.3	Ridgeville Corners	
New Lisbon	46	-22	18.0	1.75	Power†	44	-20	10.2	Ripley
North Hammond†	44	-18	16.0	0.92	Saint Johns†	46	-26	7.8	Rittman
Number Four†	38	-25	14.2	3.43	Sheyenne	40	-23	8.7	Rush Creek
Ogdensburg	41	-20	15.4		Valley City†	44	-21	9.8	Sharon Center
Oxford	46	-17	21.5	2.46	Wahpeton†	43	-17	11.4	Shenandoah
Palermo†	43	-21	18.1	3.14	Washburn	49	-27	10.5	Salem
Perry City	45	-22	19.5	2.54	Wild Rice† ²	.....	7.2	T.	Springfield
Phoenix	.....	.....	2.38	Woodbridge†	39	-27	2.6	The Dalles†	
Pine City	.....	.....	2.70	Ohio	.....	.....	.....	Toledo	
Plattsburg B'sks	45	-22	12.8	1.37	Akron	55	-1	27.6	Umatilla†
Port Jervis	48	-12	22.8	4.03	Annapolis	62	5	28.6	Vale
Potsdam	39	-19	15.3	1.70	Arcanum	.....	.....	Vernonia†	
Poughkeepsie	54	-17	21.3	3.95	Ashland	57	0	26.4	West Fork†
Romulus	46	-11	21.5	2.64	Athens	68	0	32.3	Weston
Rondout†	47	-15	22.5	3.91	Auburn	65	-13	24.4	Williams
Saranac Lake	49	-31	13.4	1.96	Bangorville	55	-1	26.1	Pennsylvania
Setauket†	50	-1	25.5	4.40	Batavia	.....	.....	Altoona	
South Canisteo	50	-17	21.7	3.21	Bellefontaine	65	-5	28.5	Aqueduct
South Kortright†	45	-17	20.5	1.19	Benton Ridge	56	-8	27.0	Beaver Dam†
Stillwater	50	-20	18.3	2.97	Bethany	64	-8	31.2	Blooming Grove†
Turin	40	-19	14.7	3.79	Big Prairie	54	-1	26.3	Bloomsburg
Varysburg	57	-20	21.6	3.55	Binola	58	-8	28.2	Blue Knob
Wappingers Falls	50	-15	20.0	3.43	Bissells	55	-8	25.3	Brookville†
Warwick	.....	.....	3.34	Bladensburg	63	-9	25.0	Browns Lock	
Watertown	49	-18	21.2	2.23	Bloomingburg	65	3	30.5	Carlisle a
Wedgewood	57	-15	22.3	3.09	Bloomington	.....	.....	Clarion†	
West Chazy	.....	.....	1.40	Bowling Green	61	-6	25.0	Coatesville	
West Point†	53	-9	26.4	Bucyrus	64	-1	27.2	Confluence†	
Willets Point	50	1	26.7	6.00	Caledonia†	.....	.....	Coopersburg	
North Carolina	.....	.....	.....	Cambridge	63	-6	28.6	Davis Island Dam†	
Ashville†	68	13	40.0	3.81	Canal Dover	60	-7	27.3	Doylestown
Auburn*1	72	22	46.1	3.49	Canton†	59	1	27.0	Driton
Bailey*1	70	22	44.1	5.52	Cardington	61	-9	27.0	Du Bois†
Bakersville†	69	-2	37.9	5.75	Carrollton	61	-1	27.9	Duberry†
Blowing Rock†	60	5	33.6	5.18	Celina	60	5	31.1	East Mauch Chunk
Bryson City†	.....	.....	5.87	Cherry Fork	60	1	31.9	Easton	
Chapel Hill†	72	17	43.0	3.65	Chicago	63	-6	28.6	Edlinboro†
Columbus	62	11	39.6	5.78	Circleville†	.....	.....	Elwood Junction†	
Currituck Inlet†	.....	.....	6.11	Clarksville	64	4	30.6	Emporium	
Experimentl Farm	71	18	45.5	3.96	Cleveland	59	0	27.8	F'ks of Neshaminy†
Fair Bluff†	.....	.....	4.17	Coatont	71	-10	33.8	Frederick	
Falkland†	74	27	49.0	5.42	Colebrook	.....	.....	Freeport†	
Fayetteville†	.....	.....	3.47	Cynthiana	65	3	35.1	Geffysburg†	
Flat Rock	65	13	39.2	6.54	Flat Rock	60	5	30.7	Grampian*1
Forest Hill*1	62	15	40.3	.....	Findlay	61	-5	26.5	Greensboro†
Greenville†	.....	.....	3.68	Fostoria	61	0	27.8	Greenville	
Henderson†	70	17	43.0	6.52	Frankfort	61	-9	27.0	Hamburg
Highlands	60	6	37.0	9.64	Garrettsville	58	-14	2.76	Hollidaysburg†
Horse Cove†	63	11	39.8	7.95	Glynnia	60	-2	30.1	Honesdale
Lenoir*1†	63	18	40.7	5.66	Elyria	60	-1	27.1	Huntingdon†
Lillington†	.....	.....	3.69	Frankfort Harbor*11	56	0	27.2	Johnstown†	
Littleton†	72	9	41.4	4.79	Findlay	61	-5	26.5	Kane
Louisburg†	70	19	42.1	4.28	Fosteria	61	0	27.8	Kennett Square
Lynn† ²	70	.....	41.6	5.54	Frankfort	64	-3	27.2	Kilmer*1
May*1	74	20	48.0	4.00	Garrettsville	58	-14	2.76	Lancaster†
Mocksville†	68	16	44.3	4.66	Georgetown	64	8	34.0	Lansdale
Morganton*1†	68	16	42.5	5.00	Granville	64	-5	25.6	Lebanon
Mount Airy†	67	14	40.0	4.87	Gratiot	63	-11	30.1	Le Roy†
Mount Pleasant	69	17	45.6	3.17	Greenfield	60	2	31.4	Lewistown
Murphy†	.....	.....	6.40	Green Hill	60	9	26.5	Ligonier	
Newbern†	72	29	46.6	4.08	Guyville	59	2	26.6	Lock Haven†
Oak Ridge†	67	15	40.8	4.67	Hackney	64	2	31.5	Lock No. 4†
Pittsboro	67	19	42.2	3.50	Hanging Rock	70	8	36.2	Lycippus
Raleigh*†	72	22	46.0	6.00	Harbor	55	-1	26.2	Mahoning†
Rockingham†	73	19	46.4	2.60	Hedges	60	6	22.2	Newcastle†
Roxboro†	67	14	42.4	4.63	Hillhouse	56	-6	22.2	Oil City†
Rutherford Col*1	64	11	37.9	5.71	Hillsboro	56	6	24.5	Ottsville
Salisbury a	64	18	45.1	4.35	Hiram	56	-3	24.2	Parker†
Salisbury b†	.....	.....	3.66	Jacksonboro	64	5	30.1	Philadelphia	
Saxon†	68	14	39.8	5.87	Kenton†	63	1	28.9	Philadelphia b
Selma†	70	20	45.6	3.56	Killbuck	60	0	28.6	Point Pleasant
Shelby†	66	16	42.2	4.80	Leipsic	59	0	29.0	Pottstown*1
Sloan	73	21	50.9	4.86	Levering	60	-10	25.5	Ridgeway†
Soapstone M't†	70	16	44.3	4.01	Logan	67	1	31.9	Saegerstown
Southern Pines†	74	19	47.0	2.74	Lordstown	60	-9	26.6	Salem Corners
Tarboro	75	21	46.8	4.80	Lowell	67	-2	32.9	Seisburgh†
Washington†	73*	23	48.4	5.24	McArthur	66	-1	32.9	Selins Grove.
Weldon†	72	20	43.4	4.67	McConnelsville	66	-5	31.7	Shingelhouse
Wileyton	73	20	44.7	4.48	Mansfield†	66	-5	31.7	Sinethport
North Dakota	.....	.....	.....	Marietta a†	.....	.....	Smiths Corners		
Ashley	38	-26	6.3	0.10	Marietta b	62	9	37.5	Somerset
Berlin†	47	-21	9.3	T.	Marion	62	1	27.7	South Eaton
Bottineau	39	-28	4.7	0.02	.....	.....	.....	State College	
Churchs Ferry	41	-24	6.4	0.20	.....	.....	.....	Stoyestown†	

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean	
Ohio—Cont'd.	0	0	0	Ins.	Ohio—Cont'd.	0	0	0	Ins.	Oregon—Cont'd.	0	0	0	Ins.
Devils Lake	39	-24	5.0	T.	Dickinson†	52	-21	9.5	T.	Lakeview†	45	0	21.2	4.92
Fargo†	38	-22	6.2	0.09	Fort Berthold	56	-28	8.1	0.27	Langois	62	29	44.9	11.02
Fort Stevens†	43	-20	10.6	0.33	Fort Yates†	48	-21	7.0	0.35	Leone Rock	51	8	26.8	1.23
Grafton†	44	-23	6.9	0.15	Grafton†	44	-23	7.0	0.26	McMinnville a†	55	30	44.9	5.01
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	McMinnville b* ⁸	54	20	38.0	4.31
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Merlin* ⁸	62	21	39.4	4.31
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Monmouth* ⁸	59	24	41.8	4.90
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Moun Angel†	55	20	38.3	4.28
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Newbridge	48	7	32.4	1.40
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Newbridge	59	19	38.0	6.10
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Oregon City	50	19	38.0	6.10
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20	9.9	0.35	Pendleton	55	2	31.9	1.39
Grand Forks†	40	-20	9.9	0.35	Grand Forks†	40	-20							

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Pennsylvania—Con.	0	0	0	Ins.	Tennessee—Cont'd.	0	0	0	Ins.
Swarthmore	54	5	32.2	3.17	Carthage ^f	.....	.....	8.43	Kelton ^{*8}
Uniontown	62	9	33.6	3.35	Charleston ^f	.....	.....	5.81	— 2 25.3 0.70
Warren	.....	.....	2.89	.....	Clarksville	69	17	37.9	Koosharem
Wellsboro* ^f	56	16	23.4	2.25	Clinton ^f	.....	.....	7.34	— 15 18.0 0.33
West Chester ^f	53	2	29.9	4.66	Columbia ^f	.....	.....	9.59	Lake Park
West Newton ^f	.....	.....	3.87	.....	Covington ^f	65	11	38.3	— 3 24.6
Westtown	52	2	31.1	3.99	Florence Station [*]	66	14	39.5	Levant ^f
Wilkesbarre ^f	56	— 1	28.4	4.50	Franklin ^f	67	16	38.6	— 20 7.55
York ^f	54	— 2	29.6	4.20	Greeneville	68	16	40.0	Lou ^f
<i>Rhode Island.</i>									
Bristol	43	— 4	26.9	3.75	Harrogate ^f	69	18	39.6	Logan ^f
Kingston	47	— 9	24.9	4.95	Hohenwald	64	10	38.3	Manti ^f
Lonsdale	.....	.....	4.00	.....	Jacksonboro [*]	68	15	37.4	Mont ^f
Newport	47	0	30.1	.....	Johnson City ^f	67	13	40.5	— 13 18.9
Pawtucket	51	— 7	26.1	3.81	Johnsonville	.....	.....	4.92	Ogden a *8
Providence a.	49	— 4	27.0	4.55	Kingston ^f	.....	.....	6.41	— 2 26.2 1.02
Providence c.	49	— 8	25.0	4.19	Lynnville [*]	62	17	39.5	Parowan ^f
<i>South Carolina.</i>									
Aiken	73	22	49.6	4.49	Missionary Ridge ^{#3}	18	40.6	.....	Promontory [*]
Anderson f.	.....	.....	5.31	.....	Newport [*]	68	17	38.6	Prov City ^f
Blacksburg	69	— 17	46.2	3.71	Nunnally [*]	69	16	39.8	Randolph ^f
Blenheim [*]	— 22	46.0	.....	Palmetto ^f	.....	.....	9.01	Richfield ^f	
Camden ^f	.....	4.69	.....	Parksville [*]	65	19	42.5	— 34 10.8	
Central ²	44.4	5.00	.....	Ridgleton ^f	68	15	38.5	Rockwood ^f	
Cheraw a ^f	75	21	48.6	3.02	Rugby [*]	9.40	Rutherford ^f
Cheraw b ^f	.....	.....	2.88	Rogersville [*]	65	19	38.3	Silver Lake ^{#14}	
Clemson College ^f	.....	.....	5.32	Rugby [*]	67	10	35.4	Singletree ^f	
Conway ^f	.....	.....	4.94	Savannah [*]	69	9	41.1	Sioux City [*]	
Coronado ^f	.....	.....	3.92	Springdale [*]	66	17	39.5	Skagway [*]	
Cross Hill [*]	68	20	47.4	4.50	Strawberry Plains ^f	.....	.....	3.70	South Bend [*]
Darlington [*]	73	26	50.7	5.23	Trenton	65	4	57.3	Spokane Falls [*]
Edito ^f	.....	.....	5.23	Waynesboro [*]	72	15	39.1	St. Paul [*]	
Effingham ^f	.....	.....	3.40	Wier [*]	66	9	37.2	St. Louis [*]	
Flint Hill ^f	71	20	46.6	4.34	Texas	.....	.....	.....	St. Paul [*]
Gaffney ^f	.....	.....	4.72	Arthur City ^f	81	16	43.2	St. Paul [*]	
Georgetown ^f	72	26	53.0	3.18	Arlington ^f	.....	.....	3.23	St. Paul [*]
Greenville ^f	.....	.....	4.93	Aurora [*]	52	16	42.9	St. Paul [*]	
Greenwood ^f	.....	.....	4.59	Boston [*]	79	23	45.5	St. Paul [*]	
Hollands Store ^f	72°	16°	45.6	4.28	Belton ^f	81	20	47.7	St. Paul [*]
Kingtree ^f	.....	.....	2.91	Boerne [*]	76	20	46.6	St. Paul [*]	
Little Mountain [*]	73	20	48.3	5.11	Brady ^f	80	15	44.0	St. Paul [*]
Longshore ^f	71	19	47.0	5.87	Brazoria ^f	83	25	51.5	St. Paul [*]
McCormick [*]	65	24	47.9	3.82	Brenham ^f	78	22	50.1	St. Paul [*]
Martins	.....	.....	5.66	Brownwood ^f	78	16	43.2	St. Paul [*]	
Mount Carmel ^f	.....	.....	3.85	Burnett ^f	73	19	47.8	St. Paul [*]	
Pinopolis [*]	69	26	50.9	4.26	Camp Earl Pass	89	18	51.3	St. Paul [*]
Port Royal ^f	72	30	53.1	Childress ^f	71	7	37.8	St. Paul [*]	
Saint Stephens ^f	.....	.....	4.60	Coldwater ^f	64	— 9	23.7	St. Paul [*]	
Santuck [*]	68	26	47.3	Columbiat	80	26	54.3	St. Paul [*]	
Simpsonville ^f	71	17	45.0	3.17	Corsicana ^a	81	18	45.0	St. Paul [*]
Society Hill ^f	74	21	48.6	4.07	Corsicanab ^f	75	13	44.1	St. Paul [*]
Statesburg ^f	73	23	49.9	5.82	Cuero ^f	84	27	51.0	St. Paul [*]
Tatum Station [*]	23	45.4	2.97	Dallas ^f	79	16	44.5	St. Paul [*]	
Timmonsville ^{1d}	71	34	45.5	2.97	Devine	80	21	51.2	St. Paul [*]
Trenton	73	24	50.4	6.61	Duval [*]	80	22	49.7	St. Paul [*]
Trial ^f	70	22	52.8	5.17	Estella ^f	80	16	43.1	St. Paul [*]
Watts [*]	70	21	47.3	3.87	Flower Bluff	84	25	55.2	St. Paul [*]
Yorkville	71	18	47.2	3.03	Forestburgh ^f	70	12	41.6	St. Paul [*]
<i>South Dakota.</i>									
Aberdeen ^f	.....	.....	T.	.....	Fort Brown ^f	88	27	61.1	St. Paul [*]
Alexandria ^f	.....	.....	.....	.....	Fort Clark	82	25	52.2	St. Paul [*]
Ashcroft ^f	54	— 18	12.9	T.	Fort Hancock	76	— 1	39.0	St. Paul [*]
Bowdrie [*]	54	— 25	15.9	T.	Fort McIntosh	86	21	57.0	St. Paul [*]
Britton ^f	40	— 13	9.7	0.00	Fort Ringgold ^f	94	27	60.8	St. Paul [*]
Brookings ^f	44	— 23	8.3	0.40	Fredericksburg [*]	75°	20	46.2	St. Paul [*]
Castlewood ^f	45	— 20	10.2	T.	Gainesville ^f	78°	16	39.9	St. Paul [*]
Clark ^f	56	— 23	12.2	T.	Grape Vine ^f	78	16	42.5	St. Paul [*]
Cross ^f	59	— 25	18.9	0.48	Hallettsville ^f	80	26	51.4	St. Paul [*]
De Smet ^f	54	— 22	13.4	0.00	Hartley ^f	63	— 2	19.6	St. Paul [*]
Faulkton ^f	52	— 18	11.5	0.07	Highland	70°	16	41.6	St. Paul [*]
Flandreau ^f	42	— 17	13.6	T.	Houston ^f	79	23	50.6	St. Paul [*]
Forestburg ^f	45	— 20	11.5	0.20	Huntsville ^f	74	22	49.9	St. Paul [*]
Fort Meade	54	— 15	21.6	0.12	Kent	.....	.....	0.00	St. Paul [*]
Fort Sully	63	— 15	19.4	T.	Kyle [*]	75	27	52.5	St. Paul [*]
Frankfort ^f	43	— 22	11.4	0.05	Longview ^f	80	19	48.8	St. Paul [*]
Gale ^f	45	— 23	10.3	0.00	Luling ^f	79	24	51.6	St. Paul [*]
Gary ^f	45	— 16	13.0	0.00	McGregor ^f	60	17	33.5	St. Paul [*]
Greenwood	53	— 13	18.0	0.36	Menardville [*]	80	15	43.5	St. Paul [*]
Highmore [*]	43	— 20	13.4	0.05	Mountain Spring ^f	78	15	42.9	St. Paul [*]
Hotch City ^f	48	— 26	11.0	0.10	New Braunfels ^f	79	22	50.0	St. Paul [*]
Hot Springs ^f	52	— 21	20.1	0.84	Orange ^f	78	26	53.3	St. Paul [*]
Howard ^f	43	— 20	10.7	T.	Paris ^f	74	15	42.3	St. Paul [*]
Kimball ^f	45	— 21	12.8	0.25	Roby ^f	75	11	37.8	St. Paul [*]
Millbank ^f	47	— 14	16.8	T.	Rockport [*]	76	30	53.5	St. Paul [*]
Northville [*]	42	— 20	12.0	0.07	San Antonio	81	24	51.0	St. Paul [*]
Oehrlichs ^f	49	— 19	14.2	2.25	San Marcos ^f	80	— 8	1.07	St. Paul [*]
Parker ^f	46	— 17	11.6	T.	Silver Falls ^f	72	8	36.3	St. Paul [*]
Parkston ^f	48	— 15	12.2	0.07	Temple ^f	77	47	6.14	St. Paul [*]
Piedmont	.....	.....	0.13	.....	Twohig ^f	79	18	45.0	St. Paul [*]
Rosebud ^f	55	— 15	16.4	0.80	Victoria [*]	80	28	54.3	St. Paul [*]
Shiloh ^f	55	— 20	15.7	0.00	Waco ^f	80	20	48.2	St. Paul [*]
Sioux Falls ^f	42	— 16	13.2	T.	Weatherford ^f	76	13	41.6	St. Paul [*]
Spearfish ^f	54	— 15	22.3	0.73	Wichita Falls ^f	80	10	43.1	St. Paul [*]
Tyndall ^f	66	— 15	19.8	0.20	Wisconsin	88	17	30.0	St. Paul [*]
Vermillion ^f	49	— 13	17.4	.....	Blue Creek [*]	43	— 5	18.0	St. Paul [*]
Watertown ^f	43	— 19	12.8	0.25	Castle Gate ^f	44	— 5	22.0	St. Paul [*]
Webster ^f	52	— 24	12.2	0.70	Cisco ^f	54	10	30.7	St. Paul [*]
Wentworth ^f	34	— 20	9.4	T.	Coalville ^f	44*	— 22	11.9	St. Paul [*]
Wessington Spgs ^f	52	— 17	14.2	0.22	Corinne [*]	55	— 5	22.2	1.90
Tennessee...	.....	.....	.....	Desert ^f	46	— 20	22.5	1.35	Elbe
Andersonville [*]	62	17	38.9	6.66	Heber ^f	40	— 22	12.0	Elle
Ashford [*]	60	16	38.9	9.56	Ins.	.....	.....	.....	Ellensburg ^f
Bolivar ^f	58	16	37.3	9.24	Blue Creek [*]	43	— 5	18.0	Fort Simcoe
Bristol ^f	65	14	38.5	2.42	Fillmore ^f	50	— 11	24.4	1.50
Byrdstown [*]	70	14	38.7	6.00	Fort Du Cheene ^f	39	— 18	8.8	1.19
•Parkston ^f	.....	.....	.....	Fort Spokane	54	— 20	30.7	1.28	
•Preston ^f	.....	.....	.....	Fort Townsend	58	— 11	36.5	1.76	
Rosebud ^f	55	— 15	16.4	0.80	Hunters [*]	45	— 7	20.6	2.03
Shiloh ^f	55	— 20	15.7	0.00	Kennewick ^f	56	0	33.6	0.34
Sioux Falls ^f	42	— 16	13.2	T.	Lakeside ^f	52	3	25.8	0.81
Spearfish ^f	54	— 15	22.3	0.73	Lapush ^f	67	22	40.6	0.87
Tyndall ^f	66	— 15	19.8	0.20	Lauderdale ^f	50	— 14	20.5	0.86
Vermillion ^f	49	— 13	17.4	.....	Lodges ^f	54	— 17	24.8	0.85
Watertown ^f	43	— 19	12.8	0.25	Loo ^f	50	— 6	18.9	0.94
Webster ^f	52	— 24	12.2	0.70	Olga ^f	54	— 7	38.4	0.82
Wentworth ^f	34	— 20	9.4	T.	Pine Hill [*]	55	— 4	31.8	0.81
Wessington Spgs ^f	52	— 17	14.2	0.22	Pomeroy ^f	50			

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Wyoming.	o	o	o	In.	Canada.	o	o	o	In.
Big Horn Ranch †.	48	-28	16.4	o.52	Fort Francis, Ont.	37	-31	4.9	o.02
Camp Pilot Butte.	...-17	...-17	o.69		Mexico.				
Fort McKinney.	48	-22	19.6	o.29	Cuidad P. Diaz.	88	28	55.5	o.00
Fort Washakie.	49	-26	15.1	o.45	Leon de Aldamas.	78	41	61.2	T.
Fort Yellowstone †.	41	-24	12.2	1.12	Mazatlan.	76	53	64.0	T.
La Barge.	...-24	...-24	2.30		Mexico.	75	39	58.8	o.00
Lander.	45	-24	17.9	o.56	Puebla.	70	41	57.6	T.
Laramie.	42	-24	16.2	o.10	Topolobampo †.	78	50	60.0	o.00
Saratoga †.	40	-23	13.3	o.90					
Sheridan.	46	-34	9.2	o.75					
Sundance.	42	-24	13.8	o.75					
Wheatland †.	64	-12	23.2	o.30					

EXPLANATION OF SIGNS.

* Extremes of temperature from observed readings of dry thermometer.

† Weather Bureau instruments.

A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

1 Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. + 4.

2 Mean of 8 a. m. + 8 p. m. + 2.

3 Mean of 7 a. m. + 7 p. m. + 2.

4 Mean of 6 a. m. + 6 p. m. + 2.

5 Mean of 7 a. m. + 2 p. m. + 2.

6 Mean from readings at various hours reduced to true daily mean by special tables.

7 Mean from hourly readings of thermograph.

8 Mean of 7 a. m. + 2 p. m. + 9 p. m. + 3.

9 Mean of sunrise and noon.

10 Mean of sunrise, noon, sunset, and midnight.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.

An italic letter following the name of station, as "Livingston a," "Livingston b," indicates that two or more observers, as the case may be, are reporting from the same station. A small Roman letter following the name of a station, or in figure columns, indicates the number of days missing from the record; for instance, "2" denotes 14 days missing.

No note is made of breaks in the continuity of temperature records when the same do not exceed two days. All known breaks, of whatever duration, in the precipitation record receive appropriate notice.

Corrections: California, Oakdale a, January, 1894, make mean temperature 41.9 instead of 38.4. Georgia, Clayton, January, 1894, add precipitation 5.70 inches; Alapaha, January, 1894, make precipitation 1.18 instead of 1.00.

Note.—The following changes have been made in names of stations: Arizona, Navajo Springs, changed to Navajo. Illinois, Muddy Valley, changed to Halliday. Nevada, Monitors Ranch, changed to McGill.

TABLE III.—Data from Canadian stations for the month of February, 1894.

Station.	Pressure.		Temperature.		Precipitation.		Prevailing direction of wind.
	Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Departure from normal.	Total.	
Saint Johns, N. F.	Inches.	Inches.	Inches.	o	o	Inches.	s.
Sydney, N. S.	29.94	30.00	+ .05	15.5	- 3.0	2.59	nw.
Grindstone, G. S. L.							
Sandy Point, N. F.							
Halifax, N. S.	29.92	30.06	+ .08	18.8	- 2.2	3.46	n.
Grand Manan, N. B.	30.01	30.06	- .05	21.9	- 1.69	1.87	nw.
Yarmouth, N. S.	29.98	30.06	+ .02	23.8	- 1.7	2.28	3.54
Saint Andrews, N. B.	29.98	30.03	+ .03	17.2	- 1.21	2.55	nw.
Charlottetown, P. E. I.	29.96	30.00	- .04	13.2	- 1.3	2.34	1.36
Chatham, N. B.	30.02	30.04	+ .06	6.2	- 3.3	1.36	w.
Father Point, Que.	30.01	30.04	+ .04	8.0	- 2.0	0.67	o.95
Quebec, Que.	29.74	30.10	+ .06	8.6	- 1.4	2.02	1.37
Montreal, Que.	29.88	30.11	+ .06	12.0	- 1.0	1.03	1.79
Rockliffe, Ont.	29.54	30.10	+ .04	4.6	- 1.9	0.70	1.62
Kingston, Ont.	29.78	30.12	+ .04	15.8	- 0.7	1.41	e.
Toronto, Ont.	29.72	30.13	+ .04	19.5	- 1.0	2.24	o.07
White River, Ont.	28.64	30.12	- .08	- 1.6	- 0.1	0.14	1.08
Port Stanley, Ont.	29.44	30.12	+ .03	20.8	- .08	3.23	o.31
Saugeen, Ont.	29.32	30.08	+ .02	18.4	+ 0.9	2.73	0.29
Parry Sound, Ont.	29.34	30.09	+ .02	12.7	+ 0.7	2.92	o.52
Port Arthur, Ont.	29.29	30.05	- .04	5.8	+ 0.3	0.04	1.29
Winnipeg, Man.	29.16	30.07	- .09	1.6	+ 6.6	1.00	o.17
Minnedosa, Man.	28.07	30.04	- .11	0.1	+ 5.9	0.77	o.21
Qu'Appelle, Assiniboina.	27.61	30.07	- .07	2.2	- 4.7	0.66	o.01
Medicine Hat, Assiniboina	27.60	30.05	- .09	14.2	- 3.7	0.92	o.48
Swift Current, Assiniboina	27.32	30.09	- .05	8.4	- 2.4	0.50	o.26
Calgary, Alberta.	26.28	30.02	- .07	14.6	+ 5.1	0.03	o.73
Prince Albert, Sask.	28.38	30.03	- .04	1.6	- 0.47	.....	o.47
Edmonton, Alberta.	27.53	30.03	- .07	10.5	+ 3.9	T.	- 0.46
Battleford, Saskatchewan.	28.14	30.03	- .04	2.8	- 4.7	0.14	se.
Spences Bridge, B. C.	29.15	30.02	- .04	26.2	- 2.5	0.25	e.
Sable Island.							
Hamilton, Bermuda.	30.06	30.22	+ .11	62.0	- .08	3.19	s.
December, 1893.							
Father Point, Que.	29.99	30.02	+ .07	10.5	- 5.5	4.54	+ 2.32
January, 1894.	29.72	29.87	+ .03	22.0	- 1.6	6.77	n.
Saint Johns, N. F.							

Received too late for publication in January, 1894.

Arkansas.					Minnesota.			
Helena †.	72	6	45.4	4.84	Long Prairie †.	45	-38	4.2
California.					Missouri.			
Calloway †.					Atwood * ³ .	58	0	22.2
Davisville b.	78	30	52.0	6.34	Kansas.			
Julian †.					Collyer * ³ .	60	-4	18.2
Kernville.					Ellis * ⁶ .	64	-2	25.4
Pleasanton b.	60	20	42.8	4.31	Grainfield * ⁶ .	68		1.10
Point George L. H.					Kentucky.			
Upper Lake.	67	20	41.6	10.43	Burnside †.			
Colorado.					Illinois.			
Lamar †.	73	-6	32.3	0.00	Atwood * ³ .			
Lealie.					Kansas.			
Longmont †.	60 ¹	-19 ¹	22.7 ¹	0.73 ¹	Collyer * ³ .			
Loveland.					Ellis * ⁶ .			
Manhattan.					Grainfield * ⁶ .			
Springfield †.					Kentucky.			
Steamboat Springs †.	36	-30	13.6	5.50	Burnside †.			
Georgia.					Illinois.			
Albany †.	76	30	52.3	.....	Atwood * ³ .			
Gillsville * ¹ †.	69	28	46.7	4.58	Kansas.			
Talbotton †.	75	26	48.6	3.97	Collyer * ³ .			
Iowa.					Ellis * ⁶ .			
Fayette.	55	-27	17.6	1.08	Grainfield * ⁶ .			
Kansas.					Kentucky.			
Lawrence ¹ .	68	-14	30.0	1.00	Burnside †.			
Michigan.					Illinois.			
Grande Pointe au Sable * ¹⁰	48	8	26.0	.....	Atwood * ³ .			

TABLE IV.—Hourly sunshine as deduced from sunshine recorders, February, 1894.

Stations.	Instrument.	Percentage for each hour of local mean time ending with the respective hour.														Monthly summary.		
		A. M.							P. M.							Instrumental record.		
		5	6	7	8	9	10	11	5	6	7	8	9	10	Actual.	Possible.	Per cent of possible.	
Baltimore, Md.	T.	20	20	38	59	69	75	75	72	67	65	57	42	.....	Hours.	Hours.		
Boston, Mass.	T.	37	41	42	57	58	64	67	66	60	49	40	41	.....	174.9	299.7	58	45
Buffalo, N. Y.	T.	22	23	29	48	61	65	66	67	60	47	32	30	.....	159.0	295.1	54	41
Chicago, Ill.	T.	45	50	51	56	61	64	64	61	60	61	52	49	.....	144.1	295.1	48	39
Cincinnati, Ohio	P.	31	40	43	49	51	54	51	51	50	45	43	40	.....	170.6	295.5	57	50
Cleveland, Ohio.	P.	30	34	37	49	51	46	45	40	44	41	37	36	.....	141.1	300.3	47	44
Colorado Springs, Colo.	T.	34	44	60	78	86	88	87	79	75	65	43	36	.....	117.6	174.1	68	54
Columbus, Ohio	T.	34	40	41	57	56	66	69	67	58	54	41	40	.....	161.2	301.2	54	36
Denver, Colo.	P.	56	57	68	80	88	91	83	82	76	74	57	57	.....	222.9	300.0	75	54
Des Moines, Iowa	T.	45	50	59	65	72	80	84	87	82	77	54	54	.....	208.4	296.6	70	52
Detroit, Mich.	T.	44	45	49	59	69	66	69	74	68	58	46	42	.....	175.7	294.8	59	45
Dodge City, Kans.	P.	46	57	64	68	73	74	72	75	70	65	58	51	.....	200.6	303.3	66	40
Eastport, Me.	P.	42	43	45	51	55	56	52	53	56	56	43	40	.....	148.0	292.1	50	42
Galveston, Tex.	P.	20	21	32	40	38	44	47	49	46	42	36	20	.....	117.2	312.9	38	36
Kansas City, Mo.	P.	43	44	49	60	63	64	61	64	64	58	44	44	.....	169.0	300.0	56	43
Key West, Fla.	T.	73	77	79	83	87	90	92	92	89	81	79	73	.....	264.3	316.1	84	66
Little Rock, Ark.	T.	35	33	35	43	49	50	63	58	50	51	44	35	.....	147.1	305.8	46	41
Louisville, Ky.	T.	26	33	51	66	65	62	67	69	51	27	23	23	.....	149.0	300.9	49	40
Memphis, Tenn.	P.	39	33	34	36	39	42	42	44	45	45	36	34	.....	119.5	305.2	39	34
New Haven, Conn.	T.	36	36	45	59	62	60	64	64	62	48	36	34	.....	156.3	298.4	52	46
New Orleans, La.	T.	13	16	26	34	42	46	46	45	48	41	27	20	.....	109.8	312.7	35	33
New York, N. Y.†	T.	28	30	38	44	50	52	62	55	52	40	30	30	.....	95.5	216.3	44	38
Philadelphia, Pa.	T.	31	45	45	54	60	61	64	65	56	57	45	44	.....	163.0	300.0	54	37
Portland, Me.	T.	40	41	50	65	78	83	88	89	87	69	42	40	.....	199.3	294.6	67	42
Portland, Oreg.	P.	5	9	19	26	28	33	24	26	26	28	14	10	.....	66.0	292.1	23	24
Rochester, N. Y.	T.	23	27	27	53	59	66	72	71	68	46	27	27	.....	148.4	295.0	50	50
Saint Louis, Mo.	T.	57	58	58	67	77	78	71	70	63	57	54	40	.....	192.1	301.6	63	56
Salt Lake City, Utah	T.	31	31	31	48	79	74	84	80	70	59	32	28	.....	167.1	297.2	56	43
San Diego, Cal.	P.	64	71	75	76	86	81	84	87	89	77	75	75	.....	248.9	307.6	81	61
San Francisco, Cal.	P.	26	32	49	61	64	59	55	61	62	65	52	30	.....	163.1	302.3	54	51
Santa Fe, N. Mex.	P.	40	50	64	73	72	74	73	80	72	61	57	48	.....	200.9	304.5	66	53
Savannah, Ga.	P.	37	38	46	44	47	44	41	54	56	49	38	35	.....	138.8	307.5	45	38
Tucson, Ariz.	P.	63	68	83	88	90	92	93	90	83	64	57	57	.....	253.5	308.3	82	64
Vicksburg, Miss.‡	T.	26	26	34	41	48	51	57	51	47	47	46	29	.....	81.7	186.5	44	41
Washington, D. C.	P.	28	25	40	50	58	53	54	62	59	60	55	49	.....	154.4	300.6	51	46
Wilmington, N. C.	T.	25	26	32	55	58	60	65	64	52	46	28	25	.....	142.3	304.5	47	36

*Instrumental record for 16 days.

†For 20 days.

‡For 17 days.

The personal estimates are all for the whole month.

TABLE V.—*Mean temperature for each hour of seventy-fifth meridian time, February, 1894.*

Stations.	8 a.m.												4 p.m.												Midnight.	Mean.
	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.	Midnight.	Mean.		
Abilene, Tex.	37.4	36.8	36.3	35.6	34.9	34.2	34.0	33.6	33.2	34.4	37.4	40.0	42.2	44.6	46.4	47.8	48.7	48.0	46.5	44.7	42.2	40.7	39.6	38.6	39.9	
Albany, N.Y.	20.6	20.0	19.5	19.4	19.2	18.6	18.2	18.2	18.9	20.5	21.9	23.3	24.6	25.3	25.8	25.6	25.0	24.2	23.5	22.6	21.9	21.7	21.2	21.6	21.9	
Alpena, Mich.	16.6	16.1	15.2	14.8	14.0	13.6	13.6	14.4	15.7	16.3	18.5	19.5	20.2	21.7	23.2	24.6	25.2	24.9	23.4	21.9	20.9	19.9	19.1	18.4	17.9	
Amarillo, Tex.	20.1	25.5	24.8	23.9	23.1	22.5	21.6	21.3	23.5	26.0	28.5	31.0	34.7	35.8	36.6	37.7	36.0	33.9	31.3	29.5	28.4	27.2	28.5	29.5	28.5	
Atlanta, Ga.	43.6	43.0	42.4	42.0	41.8	41.9	41.8	41.2	41.8	42.5	43.9	45.5	46.9	48.4	49.0	49.3	49.1	48.8	48.0	47.0	46.1	45.4	44.2	43.8	44.9	
Augusta, Ga.	48.2	47.3	47.0	46.8	46.2	46.0	45.6	44.9	45.9	47.8	50.1	52.0	53.5	54.8	55.9	56.1	55.5	54.3	52.0	51.2	50.4	49.4	48.6	52.4	52.4	
Baker City, Oreg.	20.1	19.2	18.8	18.2	18.0	17.9	17.2	16.9	17.0	16.6	17.8	20.1	23.1	24.9	26.7	27.5	27.4	25.6	23.8	22.8	22.0	21.4	21.1	21.6	21.6	
Baltimore, Md.	32.9	32.4	31.6	31.1	30.9	30.7	31.1	31.5	32.7	33.9	35.5	36.5	37.8	38.1	38.2	37.6	36.8	35.9	34.6	34.1	33.6	33.2	34.0	34.0	34.0	
Boston, Mass.	24.7	24.5	24.2	23.9	23.6	23.3	23.4	24.1	25.0	26.2	27.0	29.2	30.4	30.5	31.0	30.6	29.9	29.1	28.4	27.9	27.3	26.8	25.7	26.8	26.8	
Buffalo, N.Y.	22.6	22.4	22.0	22.4	22.0	21.6	21.4	21.6	22.5	23.3	23.9	25.1	25.6	25.9	26.4	26.1	25.8	25.3	24.9	24.7	24.5	24.0	23.7	23.9	23.9	
Charleston, S.C.	50.8	50.1	50.4	49.5	49.1	49.0	48.7	48.8	50.0	51.2	54.0	54.8	56.0	56.4	56.6	56.3	55.8	53.9	52.7	52.2	51.9	51.9	51.6	51.4	52.3	
Charlotte, N.C.	43.4	42.6	41.6	41.0	40.5	39.9	39.1	39.1	40.2	42.4	44.7	46.9	48.7	50.1	51.3	51.8	51.3	49.9	48.5	47.2	46.4	45.6	43.7	45.0	45.0	
Cheyenne, Wyo.	16.2	15.5	15.0	14.9	14.7	15.0	14.7	14.9	15.0	15.2	17.5	20.6	24.6	26.4	27.5	28.2	28.8	28.4	27.5	25.8	22.2	20.5	18.7	17.6	20.4	
Chicago, Ill.	22.0	21.5	21.2	20.8	20.6	19.8	19.6	19.8	20.5	21.4	22.6	23.8	24.9	25.9	27.1	27.2	26.6	25.9	25.3	24.4	23.9	23.0	23.3	23.3	23.3	
Cincinnati, Ohio	31.9	31.4	30.6	30.2	29.4	29.1	28.7	28.8	30.0	31.7	33.0	35.3	36.2	37.2	37.8	37.9	37.4	36.6	35.8	34.9	34.0	33.0	32.5	33.0	33.0	
Cleveland, Ohio	26.0	25.3	24.7	24.1	23.8	23.5	23.0	22.6	23.0	24.2	25.4	26.8	27.8	28.6	29.0	29.6	29.2	28.8	28.2	28.0	27.9	27.4	27.0	26.4	26.4	
Colorado Springs, Colo.	17.8	17.7	17.4	17.5	17.4	16.9	16.1	15.3	14.7	17.4	22.9	27.2	29.3	30.1	31.0	31.8	31.4	29.3	26.2	23.7	21.4	20.3	19.4	22.7	22.7	
Columbus, Ohio	27.7	27.0	26.6	26.2	25.8	25.3	25.0	25.1	26.0	27.5	29.2	30.7	32.3	33.1	34.0	34.5	34.5	33.3	32.7	31.1	30.6	29.7	29.0	29.6	29.6	
Denver, Colo.	21.3	20.2	19.9	19.3	18.8	18.1	17.7	16.8	16.6	17.4	20.7	22.5	25.7	28.7	33.7	34.4	35.0	34.4	32.9	30.9	29.0	27.1	24.8	23.4	24.9	
Des Moines, Iowa	18.5	17.9	17.2	16.4	14.9	14.4	14.2	14.2	16.2	19.0	21.6	23.6	25.7	27.1	28.3	28.6	27.4	24.8	23.6	22.3	21.2	20.2	19.9	20.9	20.9	
Detroit, Mich.	22.1	21.9	21.5	21.1	20.6	20.2	19.8	19.6	20.1	21.4	23.2	24.8	25.7	26.8	27.8	27.7	27.1	26.4	25.1	24.7	24.0	23.4	23.7	23.7	23.7	
Dodge City, Kans.	20.4	20.0	19.5	18.8	17.9	17.5	17.0	16.6	16.4	18.1	22.1	25.0	26.4	28.0	31.1	32.8	33.0	32.5	31.0	27.8	26.0	24.9	23.2	22.2	23.9	
Duluth, Minn.	12.6	12.0	11.1	10.5	9.5	8.9	8.2	7.6	7.8	8.6	10.3	12.9	15.7	17.5	19.1	20.4	20.8	20.3	19.3	18.5	17.4	16.5	15.6	14.8	14.0	
Eastport, Me.	18.2	17.9	17.4	17.5	17.1	16.8	16.7	17.1	18.0	19.6	22.2	23.6	23.9	23.6	23.0	22.0	21.4	21.1	20.4	19.9	19.5	19.2	20.0	19.6	19.6	
El Paso, Tex.	43.8	42.1	40.8	39.1	37.9	36.0	34.1	33.6	32.9	34.9	38.9	43.1	46.3	49.4	51.8	53.3	54.8	54.9	55.0	52.8	50.7	45.4	47.0	44.6	44.4	
Fort Smith, Ark.	37.0	36.3	36.0	35.6	35.1	34.8	34.3	34.4	34.2	35.5	37.3	39.9	42.5	45.0	46.6	47.5	47.5	47.0	45.2	43.3	42.1	40.6	39.9	38.7	39.8	
Galveston, Tex.	52.7	52.4	52.1	51.8	51.3	50.9	50.9	51.1	51.6	52.5	53.6	54.5	55.3	55.8	56.1	56.1	55.9	54.9	54.2	54.0	53.3	53.0	52.6	53.2	53.2	
Grand Haven, Mich.	23.1	22.1	22.8	22.1	21.5	21.2	21.0	20.4	21.6	23.1	23.4	24.4	25.5	26.1	26.6	26.4	25.5	25.2	24.9	24.5	24.2	23.9	23.5	23.6	23.6	
Havre, Mont.	12.5	12.3	11.6	11.4	11.9	11.5	11.1	11.0	11.6	11.0	11.5	14.8	17.6	19.3	21.6	23.4	23.2	21.5	21.1	19.0	17.4	16.4	15.0	14.0	15.6	
Helena, Mont.	15.0	14.2	13.9	13.7	13.1	12.5	12.1	11.5	11.5	13.5	14.8	16.6	17.5	18.7	19.9	20.9	21.2	20.8	19.4	18.2	17.9	16.7	16.5	15.9	15.9	
Huron, S.Dak.	6.5	6.2	5.9	5.3	5.1	4.8	3.8	3.4	3.1	4.2	7.4	10.5	13.0	14.9	17.0	18.6	18.5	17.6	16.0	14.0	12.7	11.3	10.2	9.1	10.0	
Indianapolis, Ind.	27.9	27.2	26.6	25.3	25.6	25.1	24.9	24.6	25.9	27.8	29.5	31.1	32.0	33.7	34.5	35.3	33.2	32.3	31.2	30.5	29.8	28.9	29.5	29.5	29.5	
Jacksonville, Fla.	55.9	55.2	54.9	54.2	53.7	53.4	53.1	53.8	55.9	58.1	60.0	61.5	62.7	64.1	64.5	64.6	63.7	62.6	60.6	59.5	58.6	57.8	57.3	56.6	58.4	
Kansas City, Mo.	25.1	24.1	23.8	23.4	23.0	22.9	22.6	22.2	23.5	25.0	26.8	28.2	29.4	30.9	31.6	31.8	31.5	30.6	29.8	27.7	26.3	26.3	26.3	26.6	26.6	
Key West, Fla.	69.9	69.9	69.9	70.0	69.7	69.7	70.5	72.3	73.4	74.5	75.3	75.6	75.6	75.4	75.0	74.3	73.3	71.8	71.1	70.3	70.5	70.2	72.1	72.1	72.1	
Knoxville, Tenn.	39.1	38.6	38.0	37.6	37.2	36.4	35.9	35.8	36.1	37.7	39.3	41.1	42.5	43.9	44.7	45.5	46.6	47.5	48.4	49.3	49.2	49.1	49.0	49.4	49.4	
Lander, Wyo.	8.6	7.8	6.8	6.0	5.1	4.7	4.0	3.2	2.7	6.1	12.5	16.7	21.1	24.2	25.8	26.0	26.1	24.4	20.4	16.8	13.5	12.3	9.9	13.2	13.2	
Little Rock, Ark.	40.2	39.4	38.6	38.0	37.2	36.8	36.3	36.0	36.0	37.1	39.0	40.4	41.6	41.9	43.5	45.0	45.9	46.5	46.3	45.5	44.6	42.5	41.5	40.8	41.0	
Louisville, Ky.	34.1	33.5	33.0	32.3	31.5	31.0	30.6	30.8	31.1	32.4	34.0	35.1	37.5	38.9	39.5	40.2	41.1	40.5	39.1	38.1	37.3	36.0	35.4	35.3	35.3	
Lynchburg, Va.	35.8	36.3	36.0	35.6	35.2	34.8	34.5	34.6	35.0	36.1	37.1	38.1	39.2	40.2	41.5	42.5	43.6	44.5	45.4	46.0	45.5	45.2	44.9	45.4	45.4	
Marquette, Mich.	15.8	15.3	14.7	14.1	13.4	12.8	12.3	12.0	12.7	13.9	16.0	17.9	19.3	20.4	21.1	21.5	21.1	20.7	19.7	18.9	18.0	17.8	17.5	16.9	16.8	
Memphis, Tenn.	39.8	39.5	38.8	38.2	37.8	37.2	36.5	36.5	36.8	37.9	39.2	40.4	41.8	42.9	44.1	45.4	46.4	47.4	48.4	49.3	49.2	49.1	48.8	49.5	49.5	
Milwaukee, Wis.	19.9	19.3	19.0	18.8	18.0	17.5	17.2	17.0	16.7	17.2	19.1	21.6	24.6	27.5	29.7	32.5	32.1	29.7	27.3	22.2	21.9	21.2	21.8	21.8	21.8	
Montgomery, Ala.	48.2	47.9	46.9	46.7	46.4	45.2	45.5	45.1	45.2	45.9	47.9	50.1	52.0	53.5	54.8	55.9	56.0	55.2	54.2	53.3	52.3	51.2	49.7	50.4	50.4	
Moorhead, Minn.	7.4	6.4	6.1	5.7	5.0	4.0	3.5	3.3	3.6	4.5	6.7	9.3	11.2	13.3	14.8	15.8	15.5	15.2	14.2	13.2	12.2	11.1	10.2	9.4	9.3	
Nantucket, Mass.	29.2	29.2	29.4	29.4	29.3	29.0	30.2	30.7	31.0	31.6	32.1	32.1	32.0	32.1	32.1	32.0	31.4	30.1	29.7	29.6	29.8	29.8	29.5	30.3	30.3	
Nashville, Tenn.	38.0	37.5	36.7	36.1	35.4	35.3	34.6	34.8	34.5	34.2	34.7	36.0	38.0	40.3	42.5	43.4	44.3	45.0	45.8	46.6	47.5	48.4	49.3	49.2	49.2	
New Haven, Conn.	23.0	23.2	22.8	22.5	22.2	21.9	21.6	22.6	22.4	22.2	23.0	25.8	28.9	30.7	30.6	30.2	29.5	28.1	27.3	26.6	25.2	24.4	24.1	25.1	25.1	
New Orleans, La.	52.9	52.7	52.3	51.7																						

TABLE VI.—*Mean pressure for each hour of seventy-fifth meridian time, February, 1894.*

Stations.	7 a. m.												8 p. m.												9 p. m.											
	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.												
Abilene, Tex.	28.331	.222	.320	.318	.311	.311	.316	.325	.335	.344	.351	.354	.343	.323	.297	.279	.272	.270	.275	.286	.301	.316	.326	.326	.315											
Albany, N. Y.	30.051	.053	.053	.054	.055	.055	.059	.078	.082	.081	.083	.084	.048	.035	.034	.040	.048	.000	.071	.071	.073	.071	.069	.069	.062											
Alpena, Mich.	29.351	.382	.385	.386	.390	.392	.402	.404	.409	.400	.396	.379	.393	.351	.352	.354	.355	.361	.362	.371	.376	.376	.375	.379												
Atlanta, Ga.	28.948	.947	.948	.946	.945	.956	.959	.970	.994	.002	.003	.994	.975	.954	.938	.932	.934	.940	.946	.949	.947	.952	.956	.953	.958											
Augusta, Ga.	29.970	.969	.965	.958	.963	.972	.981	.990	.999	.004	.997	.977	.952	.939	.934	.935	.943	.952	.959	.964	.968	.971	.974	.974	.924											
Baltimore, Md.	29.934	.927	.920	.913	.914	.924	.931	.944	.954	.958	.957	.943	.924	.912	.911	.912	.925	.938	.959	.949	.957	.959	.952	.946	.936											
Bismarck, N. Dak.	28.214	.211	.208	.209	.205	.207	.208	.209	.215	.218	.220	.210	.214	.206	.187	.176	.178	.183	.186	.195	.196	.199	.200	.197	.202											
Boston, Mass.	29.983	.982	.975	.976	.970	.983	.992	.998	.993	.989	.980	.961	.941	.936	.940	.948	.963	.974	.983	.987	.990	.990	.988	.991	.976											
Buffalo, N. Y.	29.327	.322	.317	.317	.321	.328	.341	.352	.301	.307	.370	.363	.350	.338	.335	.333	.339	.342	.344	.343	.341	.339	.336	.333	.340											
Chicago, Ill.	29.202	.202	.203	.200	.198	.204	.209	.214	.223	.224	.219	.203	.181	.165	.166	.167	.175	.185	.189	.191	.196	.198	.197	.197												
Cincinnati, Ohio	29.448	.448	.451	.454	.458	.470	.479	.489	.501	.501	.494	.482	.463	.442	.428	.424	.423	.429	.438	.448	.450	.455	.453	.450	.457											
Cleveland, Ohio	29.283	.282	.281	.282	.290	.299	.309	.315	.325	.327	.320	.302	.284	.273	.274	.274	.269	.274	.284	.283	.285	.284	.282	.282												
Colorado Spgs., Colo.	23.912	.940	.939	.940	.936	.945	.940	.952	.958	.956	.950	.930	.915	.899	.888	.891	.904	.922	.936	.936	.938	.940	.933	.933												
Columbus, Ohio	29.175	.175	.176	.175	.188	.198	.209	.220	.223	.227	.217	.200	.176	.163	.155	.157	.169	.176	.180	.180	.182	.186	.181	.188												
Davenport, Iowa												
Denver, Colo.	24.716	.714	.711	.700	.704	.701	.704	.700	.709	.714	.717	.720	.718	.705	.684	.666	.658	.658	.663	.678	.691	.702	.709	.713	.699											
Des Moines, Iowa	29.212	.210	.209	.209	.200	.199	.201	.199	.202	.204	.205	.204	.195	.179	.166	.164	.164	.166	.180	.188	.191	.196	.199	.193												
Detroit, Mich.	29.289	.289	.288	.289	.291	.301	.306	.319	.328	.327	.322	.308	.289	.277	.272	.274	.278	.287	.291	.290	.290	.288	.287	.296												
Dodge City, Kans.	27.493	.458	.452	.447	.438	.435	.441	.451	.470	.482	.494	.499	.483	.458	.443	.438	.440	.445	.448	.451	.454	.454	.458													
Duluth, Minn.	29.335	.339	.341	.335	.338	.339	.341	.342	.340	.333	.329	.316	.291	.275	.265	.263	.268	.276	.288	.295	.297	.298	.304	.311												
Eastport, Me.	29.953	.954	.957	.959	.965	.971	.989	.002	.005	.001	.985	.966	.945	.935	.930	.931	.935	.944	.954	.956	.964	.963	.964	.962												
El Paso, Tex.	26.232	.234	.234	.235	.236	.245	.255	.269	.282	.292	.291	.286	.295	.235	.210	.195	.190	.188	.195	.205	.218	.226	.231	.237												
Galveston, Tex.	30.128	.126	.121	.114	.113	.113	.124	.134	.144	.161	.168	.179	.152	.116	.097	.085	.081	.086	.094	.109	.117	.127	.129	.128												
Grand Haven, Mich.	29.381	.385	.387	.386	.385	.383	.385	.393	.401	.400	.397	.396	.383	.349	.343	.346	.347	.355	.363	.364	.367	.374	.374													
Havre, Mont.	27.350	.359	.354	.349	.342	.337	.332	.332	.332	.341	.341	.351	.342	.330	.319	.310	.311	.307	.309	.319	.332	.341	.346	.335												
Helena, Mont.	25.790	.790	.790	.790	.790	.790	.790	.790	.792	.790	.791	.785	.779	.761	.749	.742	.744	.750	.754	.762	.770	.777	.782	.777												
Huron, S. Dak.	28.085	.682	.680	.678	.671	.671	.674	.672	.670	.686	.685	.651	.669	.652	.645	.644	.643	.649	.659	.660	.660	.663	.666	.667												
Indianapolis, Ind.	29.283	.289	.292	.301	.304	.313	.322	.327	.339	.330	.323	.299	.282	.266	.259	.259	.263	.274	.279	.283	.284	.283	.295													
Jacksonville, Fla.	30.129	.125	.118	.119	.120	.128	.141	.151	.159	.166	.163	.148	.119	.096	.086	.082	.086	.097	.114	.125	.132	.136	.134	.125												
Kansas City, Mo.	29.133	.131	.128	.123	.114	.109	.113	.117	.125	.133	.144	.138	.119	.102	.094	.093	.093	.099	.100	.116	.121	.131	.131	.119												
Keeler, Cal.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Key West, Fla.	30.174	.165	.150	.144	.143	.148	.162	.177	.189	.199	.200	.185	.197	.149	.133	.122	.124	.131	.143	.160	.171	.173	.161													
Knoxville, Tenn.	29.088	.087	.086	.084	.087	.088	.107	.114	.120	.124	.128	.123	.107	.082	.094	.054	.057	.087	.074	.081	.084	.094	.097													
Little Rock, Ark.	29.838	.837	.837	.834	.826	.830	.839	.847	.852	.866	.875	.855	.858	.831	.811	.795	.793	.792	.809	.810	.825	.841	.833													
Louisville, Ky.	29.504	.504	.509	.570	.571	.574	.593	.601	.605	.607	.608	.579	.559	.541	.534	.535	.540	.553	.558	.561	.566	.568	.570													
Lynchburg, Va.	29.384	.382	.376	.376	.381	.389	.404	.412	.416	.419	.417	.405	.384	.387	.360	.361	.370	.380	.394	.395	.399	.398	.395													
Marquette, Mich.	29.212	.213	.220	.221	.220	.225	.231	.231	.232	.235	.234	.214	.196	.182	.179	.176	.186	.187	.191	.193	.194	.194	.198	.200												
Memphis, Tenn.	29.812	.806	.801	.797	.802	.811	.816	.832	.839	.849	.845	.832	.832	.795	.779	.770	.779	.786	.800	.802	.809	.810	.810													
Milwaukee, Wis.	29.348	.356	.365	.368	.372	.378	.382	.379	.384	.384	.385	.350	.359	.356	.352	.352	.353	.355	.358	.362	.369	.372	.370													
Moorhead, Minn.	29.031	.029	.028	.029	.026	.025	.029	.026	.023	.025	.026	.023	.021	.005	.005	.002	.010	.017	.021	.020	.018	.011	.010													
Nantucket, Mass.	30.109	.107	.102	.101	.102	.102	.111	.113	.112	.108	.102	.086	.070	.062	.061	.066	.075	.092	.106	.116	.121	.123	.119													
Nashville, Tenn.	29.549	.553	.557	.556	.556	.564	.571	.570	.582	.585	.584	.572	.545	.525	.514	.508	.511	.514	.529	.538	.542	.549	.554													
New Haven, Conn.	30.099	.098	.093	.090	.099	.095	.012	.010	.014	.009	.005	.005	.999	.974	.962	.992	.970	.983	.998	.010	.015	.016	.017													
New Orleans, La.	30.103	.096	.091	.089	.088	.096	.106	.117	.128	.135	.133	.132	.111	.092	.075	.070	.075	.081	.094	.106	.112	.112	.103													
New York, N. Y.	29.945	.939	.931	.921	.922	.928	.935	.943	.945	.948	.940	.934	.918	.909	.910	.914	.925	.935	.947	.952	.957	.959	.957													
Norfolk, Va.	30.066	.058	.051	.049	.058	.068	.082	.094	.103	.107	.106	.097	.075	.062	.055	.053	.058	.072	.084	.090	.088	.083	.076													
Olympia, Wash.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Omaha, Neb.	28.995	.961	.959	.955	.951	.949	.952	.955	.959	.964	.955	.923	.945	.928	.919	.923	.931	.936	.942	.944	.945	.950	.951													
Philadelphia, Pa.	30.019	.012	.006	.009	.009	.004	.013	.023	.032	.035	.036	.024	.007	.005	.001	.003	.016	.028	.035	.039	.037	.035	.037													
Pikes Peak, Colo.	17.452	.451	.445	.435	.429	.421	.424	.430	.445	.456	.468	.470	.456	.474	.463	.455	.457	.4																		

TABLE VII.—Average wind movement for each hour of seventy-fifth meridian time, February, 1894.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Abilene, Tex.	10.8	10.5	11.5	11.6	11.1	11.5	11.3	10.9	12.0	14.0	15.2	16.7	16.1	15.2	14.5	15.0	14.6	13.1	10.8	9.6	9.8	10.2	9.9	12.4
Albany, N. Y.	7.9	7.6	7.7	6.8	8.1	7.3	7.2	8.1	8.8	10.4	11.3	11.8	11.7	12.1	12.0	10.9	9.8	8.8	8.3	8.0	8.1	8.3	9.2	9.2
Alpena, Mich.	10.8	10.2	10.7	10.4	10.3	10.6	10.2	9.8	10.5	11.0	12.5	13.0	13.1	13.0	13.6	13.8	12.9	11.6	12.3	11.9	11.5	10.9	11.1	11.7
Amarillo, Tex.	17.0	16.9	16.9	17.1	16.4	16.1	15.2	16.4	16.0	17.8	18.9	19.9	20.5	20.3	20.1	18.5	18.4	17.9	16.7	16.5	16.4	17.4	17.7	17.6
Atlanta, Ga.	11.7	12.2	11.8	12.0	12.9	13.0	12.1	12.9	13.5	13.8	13.3	13.5	13.7	14.0	13.8	13.1	12.1	12.1	10.6	11.8	12.1	12.1	12.1	12.5
Atlantic City, N. J.	14.5	14.3	14.5	14.8	14.5	14.5	14.8	14.2	14.1	14.4	14.8	14.4	14.6	15.2	15.1	16.2	15.6	14.1	13.4	13.6	12.9	12.4	13.1	14.3
Augusta, Ga.	6.9	6.8	6.6	6.1	6.0	5.8	6.5	6.4	6.7	7.4	8.9	9.2	10.6	10.0	10.1	9.7	9.0	8.3	8.2	8.3	8.0	8.1	6.3	7.5
Baker City, Oreg.	5.0	5.8	6.0	6.4	6.6	6.7	6.3	6.0	6.5	5.8	6.1	5.2	5.3	5.9	5.5	6.3	4.5	4.1	3.6	4.0	4.5	4.7	5.6	5.6
Baltimore, Md.	7.4	7.4	7.1	7.0	6.8	7.6	7.2	7.1	8.0	7.8	8.2	9.0	10.3	10.0	10.6	9.2	8.0	7.2	7.0	7.5	8.1	7.7	8.3	
Bismarck, N. Dak.	9.6	8.5	8.9	9.8	9.8	9.5	9.4	10.1	9.9	9.5	10.3	11.0	12.0	12.5	13.1	13.2	12.2	10.6	9.5	8.8	8.9	9.9	10.6	
Block Island, R. I.	22.4	21.3	21.6	21.3	21.6	22.1	22.9	22.5	21.8	21.3	21.3	20.1	20.1	19.7	19.8	19.5	19.8	20.1	20.1	21.0	21.2	21.5	21.1	21.0
Boston, Mass.	11.5	11.8	12.1	12.4	12.0	11.5	12.0	12.3	14.2	14.6	14.8	14.5	14.6	14.6	14.6	14.6	12.9	13.3	12.9	12.9	12.2	13.1	13.1	
Buffalo, N. Y.	13.6	13.6	15.1	14.5	15.4	14.1	13.9	13.7	13.0	14.4	14.8	15.1	15.9	15.8	15.3	14.2	13.9	13.9	13.7	13.5	14.1	14.0	14.4	
Cairo, Ill.	11.6	11.8	11.6	10.9	11.3	10.5	11.5	11.0	12.0	12.5	13.0	14.0	13.4	13.5	14.1	13.2	12.6	11.9	12.1	12.4	12.7	11.5	11.4	12.2
Cape Henry, Va.	15.6	15.4	15.1	16.3	16.1	16.5	15.8	16.2	16.1	15.3	15.0	14.1	13.9	13.8	13.3	12.2	10.6	14.5	14.8	15.6	15.3	15.2	15.5	
Charleston, S. C.	9.2	9.0	9.1	8.7	8.5	9.0	9.2	9.6	10.0	10.8	11.7	11.7	12.1	12.3	11.9	11.3	10.8	8.6	9.0	8.9	9.4	9.6	10.0	
Charlotte, N. C.	9.5	9.0	8.2	7.9	8.0	8.4	8.2	9.1	9.4	10.3	10.3	10.9	10.1	10.9	9.9	9.4	8.6	9.0	9.1	8.9	8.5	9.5	9.4	
Chattanooga, Tenn.	8.1	8.6	8.1	8.5	7.7	7.0	7.2	7.1	7.9	8.2	8.1	9.8	9.3	10.2	10.3	11.1	9.9	9.0	9.4	8.9	8.7	8.1	8.7	
Cheyenne, Wyo.	11.2	11.8	10.8	9.4	9.5	10.3	10.0	10.4	11.7	13.6	14.4	15.0	15.8	16.5	16.1	14.3	13.2	12.3	11.6	11.5	10.4	11.0	12.3	
Chicago, Ill.	21.4	21.0	20.8	20.8	20.8	20.6	19.2	18.1	18.5	19.3	20.6	21.1	21.6	22.4	22.6	20.9	21.0	21.2	21.2	21.5	22.0	20.9	20.9	
Cincinnati, Ohio.	8.9	8.4	8.6	9.5	9.4	9.2	8.6	8.5	9.2	9.5	9.9	10.4	10.4	10.9	11.1	10.9	10.4	10.1	9.2	8.9	8.9	9.1	9.5	
Cleveland, Ohio.	15.0	15.9	16.2	15.8	16.1	16.2	15.8	15.1	16.5	16.8	16.7	15.9	15.8	15.3	15.1	15.3	13.1	13.2	14.3	15.5	15.0	15.4	15.3	
Colorado Sprgs, Colo.	9.4	9.3	9.1	9.1	9.6	9.4	8.8	7.9	8.5	9.0	9.8	9.5	11.1	10.9	11.7	12.2	12.6	12.1	10.7	8.3	6.9	6.3	7.5	9.5
Columbia, Mo.	7.4	7.9	7.6	7.8	7.2	7.4	7.5	7.4	8.1	9.4	9.6	10.1	10.5	9.9	9.5	9.0	8.3	7.0	6.9	6.7	7.2	8.3	8.3	
Columbus, Ohio.	11.2	11.0	10.5	11.0	11.1	11.1	11.0	11.8	12.1	12.0	12.5	13.5	13.1	12.9	12.4	12.2	11.6	11.1	11.3	12.1	12.3	12.4	11.8	
Concordia, Kans.	6.9	6.5	6.8	6.6	6.9	6.9	6.4	6.6	6.4	7.0	8.7	9.2	9.1	10.1	10.3	10.0	10.1	7.9	6.5	7.1	6.9	6.9	7.0	7.8
Corpus Christi, Tex.	11.5	11.9	11.5	11.4	10.3	10.5	10.6	10.7	11.5	12.3	12.8	13.1	12.9	13.1	13.9	14.4	15.0	14.4	12.9	11.9	10.9	11.2	12.1	
Davenport, Iowa.	9.8	9.2	9.0	9.3	8.9	8.8	8.5	8.3	8.5	9.4	10.8	11.4	11.5	12.4	12.5	12.5	11.7	10.1	9.9	9.5	9.8	10.0		
Denver, Colo.	6.2	7.3	6.9	6.8	7.4	7.4	6.5	5.9	6.0	6.4	6.2	7.0	7.7	8.5	8.1	8.2	10.2	10.5	8.5	7.2	6.5	6.8	7.4	
Des Moines, Iowa.	8.0	7.5	7.4	6.7	7.0	7.0	6.7	6.5	7.4	8.1	8.7	10.0	10.3	11.2	11.2	11.4	11.2	10.9	9.5	8.5	8.0	7.6	7.7	
Detroit, Mich.	14.2	13.2	12.8	12.4	12.8	12.4	12.5	12.3	13.0	12.6	13.4	13.8	14.4	14.7	14.8	13.7	13.5	13.0	13.3	13.1	13.6	14.6	13.3	
Dodge City, Kans.	10.6	10.8	10.8	10.1	9.8	10.2	10.5	10.6	10.9	11.7	12.0	12.4	12.7	12.4	12.4	12.4	11.9	11.6	11.9	10.0	10.2	10.2	10.2	
Dubuque, Iowa.	5.4	5.0	5.0	5.4	4.8	4.3	4.1	4.3	4.8	5.6	6.4	7.0	7.4	8.2	8.0	8.4	8.0	5.2	5.4	5.9	5.8	5.9	6.0	
Duluth, Minn.	5.2	4.6	4.8	4.7	4.4	4.5	4.4	4.4	4.9	5.2	5.5	6.5	7.4	8.3	8.6	8.9	9.1	7.7	7.7	7.2	6.8	6.8	5.8	6.4
Eastport, Me.	14.1	13.0	12.4	12.4	12.5	12.4	12.6	13.6	14.2	14.2	15.3	14.7	15.4	15.1	16.4	15.5	14.7	14.6	14.7	13.5	13.7	14.1	14.1	
El Paso, Tex.	10.1	10.5	11.1	11.0	10.4	10.6	10.0	9.4	8.8	9.6	11.1	12.6	13.2	14.2	14.8	14.9	14.8	14.2	12.1	10.4	9.5	9.9	11.5	
Erie, Pa.	13.0	12.9	12.9	13.4	13.4	13.1	13.6	13.3	13.2	13.7	14.0	14.1	14.2	13.9	13.6	13.1	11.9	12.0	12.3	12.5	12.4	13.1		
Eureka, Cal.	4.9	4.9	5.2	5.1	4.7	4.9	4.7	4.8	4.5	4.6	5.1	5.9	5.5	5.7	5.5	5.9	5.5	5.1	5.0	5.1	5.6	6.1	5.1	
Fort Canby, Wash.	17.6	17.2	16.7	16.9	17.6	17.4	17.5	17.5	17.3	17.8	18.0	17.9	18.1	18.8	18.6	18.6	18.7	18.8	20.0	21.8	19.5	17.4	18.1	
Fort Smith, Ark.	7.7	7.8	7.6	8.2	7.4	7.5	7.9	8.8	8.8	9.0	9.2	10.1	10.1	9.2	9.2	9.8	7.7	7.7	7.9	8.2	7.1	8.5		
Fresno, Cal.	4.0	4.4	5.0	5.4	5.4	5.2	5.4	5.2	5.4	5.9	5.5	5.8	6.2	6.1	6.5	6.2	5.6	5.4	4.6	4.3	4.6	4.4	5.3	
Galveston, Tex.	14.0	13.5	13.3	13.3	13.8	13.5	13.4	13.6	14.2	14.2	15.1	14.1	14.7	14.4	14.0	13.9	13.8	13.4	13.2	13.4	13.8	13.9	13.8	
Grand Haven, Mich.	14.2	14.0	14.5	13.2	13.1	13.3	13.0	12.8	12.5	12.8	12.4	12.7	12.2	12.4	13.4	13.0	13.6	12.9	12.5	13.7	14.2	14.7	13.4	
Green Bay, Wis.	9.1	9.2	9.2	8.8	9.4	9.5	8.6	8.6	8.7	9.4	10.1	10.6	10.9	11.4	11.4	13.0	12.8	12.0	10.4	9.8	9.4	9.6	10.2	
Hannibal, Mo.	9.2	9.7	9.7	10.0	9.5	9.5	9.5	9.5	10.6	11.9	13.0	13.4	13.1	12.8	12.1	11.1	10.4	9.3	10.0	9.8	9.5	10.6		
Harrisburg, Pa.	8.1	7.7	8.3	8.4	8.0	7.4	9.0	8.8	8.8	8.4	8.3	8.4	9.1	10.0	10.1	9.5	8.6	8.1	7.7	8.1	7.5	8.4		
Hatteras, N. C.	17.2	17.4	17.9	18.1	17.9	17.5	17.2	16.9	16.9	16.8	17.5	18.1	17.7	17.3	16.6	16.3	16.3	17.2	16.7	16.2	17.2	17.2		
Havre, Mont.	10.8	11.1	10.2	10.7	11.3	11.1	10.5	9.8	11.0	11.8	13.6	14.4	14.2	14.0	14.5	14.5	14.1	14.2	12.6	11.5	10.5	10.7	12.0	
Helena, Mont.	6.8	7.1	7.2	7.2	7.8	7.5	6.5	5.2	5.2	5.1	5.2	6.2	6.8	7.2	7.8	8.4	9.2	8.3	7.3	7.1	7.7	8.1	6.9	
Huron, S. Dak.	13.1	13.4	14.0	13.9	13.7	13.6	14.4	14.5	15.5	15.5	16.0	16.1	15.5	15.3	14.1	12.3	12.4							

TABLE VII.—*Average wind movement, etc.*—Continued.

Stations.	Morning												Noon												Night	
	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.	
Oklahoma, Okla.	9.5	9.5	10.6	10.9	11.2	11.5	11.5	11.2	11.4	11.1	11.9	12.3	12.7	12.6	12.9	13.1	12.2	11.4	9.9	9.3	9.1	9.8	9.4	II-2	9.4	
Olympia, Wash.	6.2	5.5	5.5	6.7	6.2	5.9	6.6	6.4	7.0	7.2	6.8	7.5	8.4	8.8	8.3	8.2	8.1	7.2	6.9	6.3	6.1	6.1	6.3	6.9	7.8	
Omaha, Nebr.	7.8	7.0	7.0	6.9	7.2	6.8	7.5	6.7	7.4	7.7	8.5	9.3	9.2	9.4	9.8	9.2	8.4	7.7	6.9	7.4	7.9	7.5	7.5	7.8		
Oswego, N. Y.	13.7	14.2	14.2	14.0	14.8	14.5	14.8	15.0	14.4	14.7	14.4	13.9	14.5	14.9	14.8	14.4	14.5	13.5	12.9	13.5	14.5	14.2	14.2	14.3		
Palestine, Tex.	7.5	7.3	7.0	6.7	6.6	6.6	7.2	7.5	7.5	8.2	9.0	8.9	9.4	9.8	9.5	9.6	9.7	8.8	7.8	6.5	6.0	6.8	7.2	7.2	7.9	
Parkersburg, W. Va.	5.6	5.9	5.9	6.0	6.5	7.0	6.8	7.1	7.1	6.9	7.4	7.8	8.5	8.2	8.8	8.6	8.3	7.4	6.0	6.0	6.5	6.3	6.0	5.6	6.9	
Pensacola, Fla.	8.6	8.9	10.1	9.6	9.0	8.9	9.8	9.5	9.6	10.2	10.4	11.1	11.9	12.2	12.6	12.0	11.8	10.8	10.1	8.8	9.5	9.3	9.6	9.8	10.2	
Philadelphia, Pa.	12.2	11.8	11.9	11.7	11.6	12.0	11.7	12.1	12.9	13.0	13.3	13.7	13.5	13.9	13.4	13.1	12.4	12.0	11.3	11.1	10.9	11.0	12.0	12.3		
Pierre, S. Dak.	6.9	7.5	7.0	7.9	7.1	6.9	6.8	6.6	7.0	8.6	8.9	9.5	10.2	11.0	11.4	11.4	11.1	10.0	8.8	8.0	7.9	7.1	8.6	8.6		
Pikes Peak, Colo.	29.1	27.4	28.5	29.0	28.6	28.9	28.8	27.5	27.9	28.7	28.0	26.8	24.4	24.3	25.3	26.8	26.6	27.9	27.0	28.5	27.8	27.0	27.5	28.9	27.5	
Pittsburg, Pa.	7.2	6.9	6.8	6.6	7.2	6.9	7.2	7.5	7.9	8.9	9.5	9.7	10.2	9.8	9.5	9.4	9.0	8.6	7.7	7.5	7.0	7.6	7.4	7.0	8.0	
Port Angeles, Wash.	4.9	5.5	5.4	5.8	5.5	5.4	5.4	5.7	5.4	5.8	5.1	5.0	4.1	4.7	4.8	5.7	4.9	5.0	5.2	4.8	4.5	5.0	5.1	4.5	5.1	
Port Huron, Mich.	13.7	13.9	13.5	14.0	14.2	14.1	14.0	13.3	13.7	14.5	14.2	14.7	14.6	14.2	14.9	15.5	14.6	13.3	13.0	12.8	13.1	13.7	14.0	14.0		
Portland, Me.	7.0	6.9	7.4	7.2	7.2	6.9	7.6	7.2	8.3	9.3	9.2	9.5	9.5	9.6	9.8	9.4	9.2	8.7	8.6	8.4	8.3	8.0	7.8	8.3		
Portland, Oreg.	11.0	9.8	9.5	9.6	8.9	9.8	10.0	10.1	9.7	10.0	10.6	10.3	10.9	11.0	11.5	12.1	11.3	11.6	11.9	11.5	11.1	11.5	11.5	10.7		
Pueblo, Colo.	6.3	6.2	6.4	6.0	6.0	6.4	6.3	5.8	5.7	5.5	5.9	5.7	6.1	6.5	7.2	9.5	11.3	11.2	10.2	8.8	7.4	6.4	6.1	6.1	7.0	
Raleigh, N. C.	7.8	8.4	8.7	8.5	7.7	7.8	7.9	7.4	8.2	8.6	9.3	9.1	9.1	9.0	8.6	8.3	6.8	6.9	7.6	6.9	7.3	7.1	8.0			
Rapid City, S. Dak.	7.1	8.2	8.1	8.5	9.2	8.5	8.9	8.6	8.0	8.3	8.5	9.1	9.0	10.5	10.0	9.4	8.6	6.5	5.9	7.1	7.3	8.4	8.4			
Red Bluff, Cal.	6.3	6.6	7.1	7.0	7.8	8.5	8.2	9.7	10.1	10.8	10.3	10.5	11.0	11.2	10.2	10.3	9.6	9.7	10.0	9.5	7.8	6.8	6.0			
Rochester, N. Y.	8.9	8.6	8.7	9.3	9.1	10.3	10.4	9.9	10.6	11.4	12.0	12.3	12.0	11.6	12.2	11.1	10.2	8.5	8.4	8.5	8.7	8.1	8.2	9.9		
Roseburg, Oreg.	3.3	3.1	3.4	3.2	2.8	2.8	2.6	2.7	2.7	3.0	3.6	3.6	4.1	4.8	5.1	5.9	5.4	4.8	4.1	3.5	3.7	3.5	3.6	3.6		
Sacramento, Cal.	7.2	8.2	7.7	7.9	8.5	8.3	8.6	9.1	8.9	9.6	10.8	11.4	12.0	12.7	12.1	11.6	10.9	9.9	8.0	7.0	7.2	7.6	9.3			
St. Louis, Mo.	12.4	12.3	12.2	12.0	11.6	12.4	11.6	11.7	12.0	12.9	13.6	14.4	13.9	14.8	15.0	15.0	15.3	14.2	12.6	11.9	12.8	13.4	12.8	12.0		
St. Paul, Minn.	7.6	6.9	6.3	6.2	6.0	5.9	6.1	6.7	6.8	7.1	8.4	9.1	10.0	10.5	10.6	10.6	10.7	10.7	9.5	8.7	7.2	8.1	8.1			
St. Vincent, Minn.	8.4	8.9	9.4	9.9	10.4	10.5	10.8	11.2	11.3	12.0	13.3	14.8	13.8	14.6	14.4	13.7	12.9	11.9	9.4	8.9	8.6	8.4	8.1	11.0		
Salt Lake City, Utah.	6.0	5.8	5.7	5.2	5.1	5.4	5.3	5.6	5.6	5.1	5.7	6.4	6.8	8.3	8.6	9.1	9.2	8.6	7.6	6.5	5.2	5.4	5.2	6.4		
San Antonio, Tex.	7.5	7.4	7.3	7.6	7.1	6.8	7.3	7.2	7.5	7.8	8.5	9.9	11.5	11.4	11.2	11.6	12.0	11.8	11.4	10.1	8.5	8.4	8.8	8.5		
San Diego, Cal.	3.9	3.6	3.8	4.0	3.9	4.6	4.4	4.6	4.6	4.3	3.9	4.5	5.7	6.8	8.0	8.8	8.6	7.4	6.0	3.6	3.0	3.5	5.2			
Sandusky, Ohio.	11.4	11.2	11.2	11.3	11.1	10.8	11.4	10.5	10.9	11.2	10.6	10.8	11.4	10.9	10.8	10.7	10.9	10.6	10.6	10.6	10.8	10.5	9.9	10.8		
San Francisco, Cal.	10.1	8.7	8.8	8.7	8.5	8.0	7.2	7.5	7.1	7.8	8.2	8.6	9.3	9.6	10.2	11.0	12.0	13.9	13.5	13.0	12.8	11.3	11.2	9.9		
Santa Fe, N. Mex.	5.2	5.6	5.6	5.3	4.1	3.9	4.1	4.4	4.5	4.4	5.6	6.7	7.5	8.9	9.3	9.5	9.0	8.8	8.6	6.5	5.3	5.4	5.9	5.2		
Sault Ste. Marie, Mich.	8.8	8.3	7.3	7.1	7.2	6.8	7.1	7.6	7.9	8.2	8.8	9.8	10.8	11.4	11.5	11.4	11.1	10.4	9.3	8.5	9.0	8.5	9.1			
Savannah, Ga.	8.8	8.4	9.0	9.2	9.0	9.2	8.2	8.8	8.8	10.4	10.9	11.1	11.5	11.4	11.2	11.8	11.4	10.8	9.9	9.1	8.6	9.1	9.7			
Seattle, Wash.	7.2	7.6	8.1	8.6	9.1	9.1	8.9	8.9	8.2	8.4	8.2	7.8	8.2	8.5	8.7	9.0	9.2	9.1	9.4	8.9	8.3	8.2	8.1	8.5		
Shreveport, La.	9.2	9.0	8.2	8.1	9.0	8.0	7.9	8.5	8.7	9.5	10.4	10.4	10.9	10.9	11.0	9.8	10.1	9.6	8.9	8.2	7.9	7.7	8.5			
Sioux City, Iowa	8.9	8.8	8.9	9.0	9.8	10.0	9.7	10.2	9.8	10.0	11.4	12.9	14.3	14.8	15.6	15.5	15.2	14.3	12.4	11.6	10.5	9.8	10.3	9.3	II-4	
Southport, N. C.	11.5	11.0	11.2	11.7	11.9	10.9	10.2	10.1	10.5	12.0	12.7	13.3	13.2	13.2	12.9	12.3	10.9	8.7	9.4	9.7	10.5	11.1	11.8	11.4		
Spokane, Wash.	6.1	6.0	6.7	6.7	6.5	6.2	6.0	5.2	5.8	6.2	5.9	6.6	7.8	7.4	8.4	8.2	8.4	8.5	7.9	7.2	6.1	6.0	6.1	6.8		
Springfield, Ill.	10.1	9.6	9.7	10.1	10.4	9.9	9.9	10.2	10.4	11.3	11.5	12.0	12.8	13.4	13.6	13.1	13.2	12.4	11.1	10.8	10.9	11.0	10.0	11.2		
Springfield, Mo.	9.8	10.1	11.1	11.0	11.1	10.7	11.2	12.2	12.4	12.5	12.7	12.6	12.9	12.2	12.0	11.6	11.1	10.6	10.5	10.2	9.9	10.7	11.4			
Tampa, Fla.	5.8	5.7	6.3	6.1	6.6	7.1	6.5	6.3	7.2	8.2	9.6	10.2	11.2	11.1	11.3	11.1	11.1	9.8	8.0	6.5	6.1	5.6	5.5	7.8		
Tatoosh Island, Wash.	19.2	18.8	18.4	19.0	20.7	20.0	18.6	18.8	18.5	19.4	18.5	18.4	19.9	20.8	20.3	20.6	21.2	19.7	19.5	18.3	17.4	18.3	19.2	20.2	19.3	
Titusville, Fla.	9.0	8.6	8.6	8.9	9.0	8.6	8.8	9.1	9.0	11.8	14.2	15.0	16.2	15.7	16.0	15.6	15.4	14.9	14.2	12.8	11.2	11.7	11.7			
Toledo, Ohio.	12.1	11.7	10.7	10.8	11.8	11.2	11.4	11.1	10.7	11.7	13.0	13.9	13.5	13.0	13.4	13.4	13.9	13.1	11.9	11.1	11.6	12.7	12.2			
Tucson, Ariz.	7.1	6.9	7.0	7.1	7.0	6.8	6.3	5.9	6.1	6.9	7.1	8.9	9.0	10.2	11.6	13.6	12.5	12.3	11.9	9.7	8.2	8.0	7.9			
Valentine, Nebr.	8.9	9.4	9.3	9.5	8.5	9.1	8.7	8.6	9.6	9.1	10.3	11.6	13.4	13.6	13.3	13.6	13.4	12.5	10.8	8.7	8.5	9.0	8.6	10.3		
Vicksburg, Miss.	9.0	8.2	8.5	9.2	9.1	9.4	9.4	9.1	9.8	10.4	10.9	10.9	10.3	10.3	10.3	10.4	10.2	9.5	8.4	8.2	8.5	8.8	9.4			
Vineyard Haven, Mass.	11.2	11.4	11.2	10.8	10.8	10.1	10.5	11.3	11.6	12.0	12.8	12.4	13.2	12.5	12.5	12.2	11.4	11.0	10.5	10.7	11.5	11.3	11.5			
Walla Walla, Wash.	6.4	6.4	6.6	6.5	6.9	5.8	6.1	6.3	6.4	6.2	5.8	6.0	6.9	7.8	9.1	9.7	9.5	8.3	7.5	6.6	6.7	6.9	7.0	7.0		
Washington, D. C.	7.4	7.2	7.0	7.0	7.1	6.9	6.3	6.2	6.6	7.4	8.4	9.2	10.3	9.8	10.1	11.1	10.2	8.6	7.8	7.0	6.6	7.2	7.2	7.9		
Wichita, Kans.	9.3	9.5	9.5	9.4	9.4	9.6	10.0	9.8	10.3	10.5	11.4	12.5	12.6	13.0	13.1	13.3	13.0	12.2	10.3	8.9	8.3	8.5	9.7	9.9		
Williston, N. Dak.	8.3	8.3	8.3	9.3	8.9	9.0	8.6	8.4	6.5	7.3	8.8	9.9	12.3	14.8	14.1	13.8	13.3	13.1	11.8	10.0	9.3	10.1	9.9	10.2		
Wilmington, N. C.	11.2	10.4	10.7	10.6	10.0	10.5	10.5	10.9	11.8	11.8	12.9	13.0	13.3	13.6	13.6	13.6	13.7	13.0	12.9	11.7	11.0	10.6				

TABLE VIII.—*Pervailing and resultant winds from self-registers for February, 1894.*

Number.	Station.	Prevailing wind.		Total movement.		Resultant direction.		Resultant movement.		Azimuth of movement minus direction.	Ratio of resultant movement to total movement.
		Direction from.	Duration.	Monthly.	Hourly average.	Direction from.	Duration.	Average hourly velocity.	Direction from.		
(1)	(2)	(3) Hours.	(4) Miles.	(5) Miles.	(6)	(7) Hours.	(8) Miles.	(9)	(10) Miles.	(11) °	(12)
1	Eastport, Me.	n.w.	186	9,497	14.1	n. 61 w.	250	11.6	n. 44 w.	2,800	+17
2	Portland, Me.	n.w.	162	5,574	8.3	n. 69 w.	264	7.6	n. 59 w.	2,000	+10
4	Boston, Mass.	w.	158	8,771	13.1	n. 70 w.	295	13.2	n. 63 w.	3,900	+7
5	Nantucket, Mass.	n.	144	9,538	14.2	n. 70 w.	240	18.9	n. 29 e.	2,760	+39
8	New Haven, Conn.	n.	173	6,888	10.2	n. 27 w.	240	11.7	n. 11 w.	2,800	+16
10	Albany, N. Y.	s.	184	6,175	9.2	n. 85 w.	140	11.3	n. 81 w.	1,583	+4
11	New York, N. Y.	n.w.	187	8,235	12.3	n. 56 w.	188	16.8	n. 39 w.	3,150	+17
13	Philadelphia, Pa.	ne.	163	8,279	12.3	n. 12 w.	204	16.3	n. 6 w.	3,333	+6
15	Baltimore, Md.	n.	113	5,553	8.3	n. 3 e.	118	16.1	n. 23 w.	1,900	-26
16	Washington, D. C.	n.w.	173	5,331	7.9	n. 7 w.	167	7.5	n. 25 w.	1,255	-18
17	Lynchburg, Va.	sw.	156	3,688	5.5	n. 84 w.	168	8.8	n. 53 w.	1,471	+31
18	Norfolk, Va.	ne.	151	6,462	9.6	n. 11 w.	96	14.1	n. 42 w.	1,350	-31
24	Wilmington, N. C.	sw.	167	7,382	11.0	n. 34 w.	112	20.1	s. 85 w.	2,248	-6
26	Augusta, Ga.	w.	148	5,030	7.5	s. 82 w.	170	10.6	s. 80 w.	1,797	-2
27	Savannah, Ga.	s.	171	6,537	9.7	s. 62 w.	167	8.1	s. 73 w.	1,360	+11
28	Jacksonville, Fla.	sw.	117	5,792	8.6	s. 57 w.	36	29.1	s. 42 w.	1,049	-15
30	Key West, Fla.	se.	236	6,855	10.2	s. 76 e.	385	8.8	n. 86 e.	3,377	-18
33	Atlanta, Ga.	n.w.	190	8,425	12.5	n. 85 w.	106	15.3	n. 85 w.	1,625	0
38	Vicksburg, Miss.	ne.	126	6,297	9.4	n. 55 e.	84	3.0	s. 40 e.	250	+85
39	New Orleans, La.	ne.	153	6,887	10.2	n. 60 e.	125	8.6	n. 30 e.	1,080	-30
42	Little Rock, Ark.	ne.	131	6,528	9.7	n. 10 e.	74	19.9	n. 3 w.	1,469	-13
44	Galveston, Tex.	se.	161	9,285	13.8	n. 85 e.	116	14.5	n. 50 e.	1,680	-35
48	Knoxville, Tenn.	w.	184	4,299	6.4	n. 70 w.	168	8.2	n. 82 w.	1,375	-12
49	Memphis, Tenn.	ne.	189	6,406	9.5	n. 33 e.	86	10.9	n. 27 e.	935	-6
50	Nashville, Tenn.	n.w.	164	5,416	8.1	n. 50 e.	88	3.5	n. 6 w.	308	-56
52	Louisville, Ky.	n.w.	143	7,439	11.1	s. 76 w.	104	17.6	s. 76 w.	1,825	0
53	Indianapolis, Ind.	n.w.	185	5,341	7.9	n. 84 w.	125	8.5	n. 90 w.	1,062	+6
54	Cincinnati, Ohio.	n.w.	162	6,376	9.5	n. 89 w.	80	22.2	s. 80 w.	1,775	+9
55	Columbus, Ohio.	n.w.	159	7,963	11.8	s. 84 w.	120	19.6	s. 90 w.	2,350	+6
56	Pittsburg, Pa.	n.w.	176	5,400	8.0	s. 86 w.	136	11.4	n. 86 w.	1,550	+8
58	Buffalo, N. Y.	w.	161	9,656	14.4	n. 84 w.	213	22.0	s. 87 w.	4,680	-9
60	Rochester, N. Y.	sw.	270	6,660	9.9	s. 56 w.	240	12.5	s. 66 w.	3,080	+10
62	Cleveland, Ohio.	se.	213	10,308	15.3	s. 20 w.	90	24.7	s. 23 w.	2,220	+3
64	Toledo, Ohio.	sw.	179	8,171	12.2	s. 87 w.	202	12.3	s. 88 w.	2,478	+1
65	Detroit, Mich.	sw.	200	8,961	13.3	s. 88 w.	218	18.3	s. 79 w.	3,994	-9
66	Alpena, Mich.	w.	162	7,836	11.7	s. 71 w.	239	8.7	s. 69 w.	2,084	-2
67	Grand Haven, Mich.	sw.	154	9,002	13.4	s. 50 w.	88	25.3	s. 68 w.	2,221	+18
68	Marquette, Mich.	n.w.	140	7,396	11.0	n. 88 w.	222	10.8	s. 81 w.	2,400	-11
70	Sault Ste. Marie, Mich.	se.	213	6,009	8.9	s. 4 e.	87	9.0	s. 70 w.	784	+74
71	Chicago, Ill.	sw.	193	14,023	20.9	s. 88 w.	240	20.3	s. 83 w.	4,879	-5
72	Milwaukee, Wis.	sw.	159	8,388	12.5	s. 88 w.	311	11.0	n. 89 w.	3,425	+3
74	Duluth, Minn.	w.	120	4,198	6.4	n. 41 w.	135	9.0	n. 43 w.	1,213	-2
75	Moorhead, Minn.	n.w.	182	7,814	11.6	s. 86 w.	203	10.5	s. 72 w.	2,140	-14
77	Bismarck, N. Dak.	nw.	303	7,101	10.6	n. 58 w.	270	15.4	s. 52 w.	4,150	+6
79	Saint Paul, Minn.	se.	208	5,411	8.1	s. 29 w.	174	9.7	s. 61 w.	1,688	+32
81	Davenport, Iowa.	sw.	171	6,749	10.0	s. 88 w.	276	10.4	s. 80 w.	2,880	-8
82	Des Moines, Iowa.	sw.	164	5,655	8.4	n. 71 w.	230	9.5	n. 70 w.	2,190	+1
88	Saint Louis, Mo.	n.w.	187	8,758	13.0	n. 60 w.	134	13.4	s. 86 w.	1,796	-26
90	Kansas City, Mo.	n.	164	7,262	10.8	n. 19 w.	100	11.3	n. 42 w.	1,130	-23
92	Omaha, Nebr.	n.w.	245	5,266	7.8	n. 81 w.	189	6.9	n. 69 w.	1,300	+12
96	Huron, S. Dak.	nw.	247	9,418	14.0	s. 76 w.	128	12.2	s. 75 w.	1,562	-1
98	Havre, Mont.	sw.	245	8,092	12.0	s. 81 w.	370	15.7	s. 65 w.	5,805	-16
100	Helena, Mont.	sw.	364	4,629	6.9	s. 62 w.	459	8.0	s. 57 w.	3,683	-5
105	Colorado Springs, Colo.	n.	307	6,390	9.5	n. 13 e.	195	10.3	n. 14 w.	2,000	-27
107	Denver, Colo.	s.	164	4,982	7.4	s. 46 w.	156	6.4	s. 60 w.	990	+14
108	Pikes Peak, Colo.	w.	203	18,507	27.5	n. 76 w.	273	35.8	n. 82 w.	9,762	-6
111	Dodge City, Kans.	nw.	164	7,238	10.8	n. 10 w.	217	9.2	n. 1 w.	1,997	+9
114	Abilene, Tex.	nw.	153	8,315	12.4	s. 88 w.	96	15.5	n. 84 w.	1,485	+8
116	El Paso, Tex.	nw.	327	7,695	11.5	n. 54 w.	285	16.1	n. 55 w.	4,595	-3
117	Santa Fe, N. Mex.	ne.	149	4,199	6.2	n. 31 w.	20	17.5	n. 53 w.	350	-22
119	Yuma, Ariz.	ne.	122	4,954	7.4	n. 33 w.	181	11.8	n. 41 w.	2,132	-8
120	Keeler, Cal.	e.	127	5,583	8.3	n. 49 e.	42	37.1	n. 40 w.	1,559	-89
122	Salt Lake City, Utah.	se.	146	4,305	6.4	s. 6 w.	193	6.6	s. 14 w.	1,283	+8
125	Spokane, Wash.	nw.	168	4,571	6.8	s. 14 e.	205	11.7	s. 7 w.	2,394	-21
132	Portland, Oregon.	sw.	194	7,161	10.7	s. 13 w.	225	18.2	s. 21 w.	4,100	+8
133	Roseburg, Oregon.	sw.	137	2,430	3.6	s. 7 w.	186	6.0	s. 21 w.	1,122	+14
137	San Francisco, Cal.	nw.	229	6,675	9.9	s. 56 w.	228	14.8	s. 44 w.	3,380	-12
140	San Diego, Cal.	w.	191	3,488	5.2	n. 52 w.	204	7.4	n. 75 w.	1,503	-23

TABLE IX.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during February, 1894.

Number.	Station.	Component direction from—				Resultant.		Number.	Station.	Component direction from—				Resultant.	
		N.	S.	E.	W.	Direction from—	Duration.			N.	S.	E.	W.	Direction from—	Duration.
<i>New England.</i>															
1	Eastport, Me.	21	13	11	27	n. 64 w.	18	73	Upper Lake region—Cont'd.	Hours.	Hours.	Hours.	Hours.	o	Hours.
2	Portland, Me.	21	11	4	29	n. 68 w.	27	74	Green Bay, Wis.	14	28	3	21	s. 52 w.	23
3	Northfield, Vt.	19	30	5	9	s. 19 w.	12	75	Duluth, Minn.	20	8	15	26	n. 43 w.	16
4	Boston, Mass.	21	13	6	31	n. 72 w.	26	76	North Dakota.	19	19	7	25	... . w.	18
5	Nantucket, Mass.	26	15	15	15	n. . . .	11	77	Moorhead, Minn.	19	19	6	21	... . w.	15
6	Woods Hole, Mass.	10	8	4	13	n. 77 w.	9	77	Saint Vincent, Minn.	19	8	11	28	n. 52 w.	21
7	Block Island, R. I.	24	10	18	23	n. 19 w.	15	78	Bismarck, N. Dak.	21	25	9	24	s. 45 w.	21
8	New Haven, Conn.	28	9	13	19	n. 17 w.	20	79	Williston, N. Dak.	10	25	9	24	s. 45 w.	21
9	New London, Conn.	22	10	7	30	n. 62 w.	26	80	Saint Paul, Minn.	9	24	19	22	s. 11 w.	15
<i>Middle Atlantic States.</i>															
10	Albany, N. Y.	21	21	4	18	... . w.	14	81	La Crosse, Wis.	21	26	3	16	s. 69 w.	14
11	New York, N. Y.	23	14	13	23	n. 48 w.	13	82	Davenport, Iowa.	17	17	7	29	... . w.	22
12	Harrisburg, Pa.	17	6	26	17	n. 39 e.	14	83	Des Moines, Iowa.	24	15	8	22	n. 57 w.	17
13	Philadelphia, Pa.	28	10	16	18	n. 6 w.	18	84	Dubuque, Iowa.	19	21	7	19	s. 81 w.	12
14	Atlantic City, N. J.	24	11	13	20	n. 28 w.	15	85	Keokuk, Iowa.	23	17	9	23	n. 67 w.	15
15	Baltimore, Md.	23	11	19	14	n. 22 e.	13	86	Cairo, Iowa.	24	19	12	10	n. 22 e.	5
16	Washington, D. C.	27	11	15	13	n. 7 e.	16	87	Springfield, Ill.	21	17	8	20	n. 72 w.	13
17	Lynchburg, Va.	19	18	11	26	n. 87 w.	15	88	Hannibal, Mo.	22	14	8	21	n. 58 w.	15
18	Norfolk, Va.	23	18	15	15	n. . . .	5	89	Saint Louis, Mo.	24	17	10	16	n. 41 w.	9
<i>South Atlantic States.</i>															
19	Charlotte, N. C.	11	24	18	18	s. . . .	13	90	Columbia, Mo.	12	7	6	12	n. 50 w.	8
20	Hatteras, N. C.	27	16	9	17	n. 35 w.	14	91	Kansas City, Mo.	25	16	12	12	n. . . .	9
21	Kittyhawk, N. C.	21	17	13	17	n. 45 w.	5	92	Springfield, Mo.	24	16	13	13	n. 21 e.	8
22	Raleigh, N. C.	20	21	9	17	s. 83 w.	8	93	Omaha, Nebr.	22	19	8	20	n. 76 w.	12
23	Southport, N. C.	20	13	13	24	n. 58 w.	13	94	Valentine, Nebr.	17	9	4	37	n. 77 w.	34
24	Wilmington, N. C.	18	17	11	23	n. 85 w.	12	95	Sionx City, Iowa.	22	24	6	18	s. 81 w.	12
25	Charleston, S. C.	19	16	14	20	n. 64 w.	7	96	Pierre, S. Dak.	19	19	16	20	... . w.	4
26	Augusta, Ga.	13	16	13	27	s. 78 w.	14	97	Huron, S. Dak.	16	21	17	22	s. 45 w.	7
27	Savannah, Ga.	14	21	15	22	s. 55 w.	12	98	Havre, Mont.	12	19	5	36	s. 77 w.	32
28	Jacksonville, Fla.	17	17	17	17	. . . .	0	99	Miles City, Mont.	7	29	10	16	s. 15 w.	23
<i>Florida Peninsula.</i>															
29	Jupiter, Fla.	8	27	13	18	s. 14 w.	20	100	Helema, Mont.	5	24	6	39	s. 60 w.	38
30	Key West, Fla.	9	18	37	2	s. 76 e.	36	101	Rapid City, S. Dak.	18	12	8	28	n. 74 w.	21
31	Tampa, Fla.	14	23	15	19	s. 23 w.	10	102	Cheyenne, Wyo.	20	4	2	39	n. 67 w.	40
32	Titusville, Fla.	12	27	11	18	s. 25 w.	17	103	Lander, Wyo.	15	16	14	25	s. 85 w.	11
<i>Eastern Gulf States.</i>															
33	Atlanta, Ga.	18	16	16	23	n. 75 w.	7	104	Kearney, Nebr.	23	13	9	23	n. 55 w.	17
34	Pensacola, Fla.	26	13	21	12	n. 35 e.	16	105	North Platte, Nebr.	17	16	4	34	n. 88 w.	30
35	Mobile, Ala.	30	15	11	14	n. 11 w.	15	106	Colorado Springs, Colo.	30	17	11	6	n. 21 e.	14
36	Montgomery, Ala.	20	15	21	14	n. 55 e.	9	107	Denver, Colo.	19	21	8	19	s. 80 w.	11
37	Meridian, Miss.	24	18	12	12	n. . . .	6	108	Pikes Peak, Colo.	19	12	9	28	n. 71 w.	20
38	Vicksburg, Miss.	19	17	22	11	n. 80 e.	11	109	Pueblo, Colo.	14	11	13	24	n. 75 w.	11
39	New Orleans, La.	19	17	23	10	n. 82 e.	13	110	Concordia, Kans.	26	15	6	17	n. 45 w.	16
<i>Western Gulf States.</i>															
40	Shreveport, La.	20	18	22	13	n. 77 e.	9	113	Dodge City, Kans.	31	10	19	19	n. 23 w.	23
41	Fort Smith, Ark.	21	6	25	41	n. 41 e.	20	114	Dodge City, Kans.	31	18	7	16	n. 23 w.	13
42	Little Rock, Ark.	20	15	16	17	n. 11 w.	5	115	Amarillo, Tex.	23	20	9	14	n. 59 w.	6
43	Corpus Christi, Tex.	25	12	20	10	n. 38 e.	16	116	El Paso, Tex.	22	8	13	29	n. 49 w.	21
44	Galveston, Tex.	20	17	20	15	n. 59 e.	6	117	Santa Fe, N. Mex.	23	19	14	17	n. 37 w.	5
45	Palestine, Tex.	27	12	16	15	n. 3 e.	15	118	Tucson, Ariz.	19	17	13	25	n. 81 w.	12
46	San Antonio, Tex.	25	12	24	8	n. 51 e.	21	119	Yuma, Ariz.	25	11	16	16	n. . . .	14
<i>Ohio Valley and Tennessee.</i>															
47	Chattanooga, Tenn.	17	19	15	17	s. 45 w.	3	120	Keeler, Cal.	15	16	20	15	n. 62 w.	15
48	Knoxville, Tenn.	23	11	16	20	n. 18 w.	13	121	Winnemucca, Nev.	15	13	19	19	n. . . .	2
49	Memphis, Tenn.	21	15	18	15	n. 26 e.	7	122	Salt Lake City, Utah.	9	28	16	16	s. . . .	19
50	Nashville, Tenn.	21	16	21	13	n. 58 e.	9	123	Baker City, Oreg.	10	27	25	12	s. 38 e.	21
51	Lexington, Ky.	24	16	13	22	n. 48 w.	12	124	Idaho Falls, Idaho.	28	14	11	20	n. 33 w.	17
52	Louisville, Ky.	17	19	14	17	s. 56 w.	4	125	Spokane, Wash.	9	29	17	13	s. 12 e.	20
53	Indianapolis, Ind.	20	18	13	21	n. 76 w.	8	126	Walla Walla, Wash.	4	36	9	16	s. 12 e.	33
54	Cincinnati, Ohio.	19	20	15	20	s. 79 w.	10	127	Fort Canby, Wash.	7	16	19	17	s. 13 e.	9
55	Columbus, Ohio.	20	19	11	21	n. 84 w.	10	128	Olympia, Wash.	9	39	8	6	s. 4 e.	30
56	Pittsburg, Pa.	19	19	12	21	. . . w.	9	129	Port Angeles, Wash.	5	33	10	18	s. 16 w.	29
57	Parkersburg, W. Va.	15	20	15	18	s. 31 w.	6	130	Seattle, Wash.	12	36	13	5	s. 18 e.	25
<i>Lower Lake region.</i>															
58	Buffalo, N. Y.	17	12	12	28	n. 73 w.	17	131	Tatoosh Island, Wash.	1	21	27	17	s. 26 e.	22
59	Oswego, N. Y.	16	24	15	16	s. 7 w.	8	132	Portland, Oreg.	10	32	10	16	s. 15 w.	23
60	Rochester, N. Y.	14	24	11	26	s. 57 w.	18	133	Roseburg, Oreg.	11	22	13	21	s. 35 w.	14
61	Erie, Pa.	14	21	10	22	s. 60 w.	14	134	Eureka, Cal.	16	21	13	18	s. 45 w.	7
62	Cleveland, Ohio.	14	22	20	18	s. 14 e.	8	135	Red Bluff, Cal.	21	20	14	19	n. 79 w.	5
63	Sandusky, Ohio.	12	19	11	26	s. 65 w.	17	136	Sacramento, Cal.	17	24	13	16	s. 23 w.	8
64	Toledo, Ohio.	16	17	10	28	s. 87 w.	18	137	San Francisco, Cal.	10	24	13	25	s. 41 w.	18
65	Detroit, Mich.	11	14	11	31	s. 82 w.	20	138	Fresno, Cal.	18	13	25	16	n. 61 e.	10
<i>Upper Lake region.</i>															
66	Alpena, Mich.	10	20	9	30	s. 65 w.	23	139	Los Angeles, Cal.	23	2	17	24	n. 18 w.	22
67	Grand Haven, Mich.	13	20	17	20	s. 23 w.	8	140	San Diego, Cal.	22	7	14	27	n. 41 w.	20
68	Marquette, Mich.	19	15	6	26	n. 75 w.	20	141							
69	Port Huron, Mich.	15	22	11	21	s. 55 w.	12	142							
70	Sault Ste. Marie, Mich.	10	22	15	22	s. 30 w.	14	143							
71	Chicago, Ill.	18	20	8	27	s. 84 w.	19	144							
72	Milwaukee, Wis.	16	17	4	31	s. 88 w.	27	145							

Blank page retained for pagination